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ABSTRACT

Included in the document are abstracts of the 19 presentations given by consultants to the working groups at Institute II. Contents of the abstracts are the salient ideas, goals, objectives, and models for planning annual and long-range progr s of vocational education in rural areas. Presentations by the consultants were designed to enable the 5 working groups to take systematic approaches to annual and long-range planning at the local and state levels, and budgeting and evaluation for vocational programs in rural areas for youth and adults. Each working group dealt with case studies deliberately structured to simulate actual conditions so as to provide practicality to analyses and solutions. The simulation devices (case studies), Institute II program, statements of intent, and participant list are appended. (LS)

FINAL REPORT

Institute II

Project No. 9-0472

Grant No. OEG-0-9-430472-4133(725)

PLANNING ANNUAL AND LONG RANGE PROGRAMS OF VOCATIONAL EDUCATION FOR RURAL AREAS ACCORDING TO THE VOCATIONAL AMENDMENTS OF 1968

Part of
National Inservice Training Multiple Institutes
for Vocational and Related Personnel
in Rural Areas

Edwin L. Kurth
Raymond P. Perkins

University of Florida
Gainesville, Florida 32601

September 1970

The institute reported herein was performed pursuant to a grant to North Carolina State University at Raleigh by the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
National Center for Educational Research and Development

ACKNOWLEDGEMENTS

The directors, Dr. E. L. Kurth and Dr. R. P. Perkins wish to express their sincere appreciation to the steering committee for these multiple institutes, the staff memebers of the North Carolina State University Center for Occupational Education at Raleigh and to the many University of Florida personnel, faculty, and staff members who gave so generously of their time in preparing for and conducting this institute.

The institute reported herein was the second of a series of seven of National Inservice Training Multiple Institutes for Vocational and Related Personnel in Rural Areas funded by the United States Office of Education through North Carolina State University.

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SUMMARY

Phase I began September 15, 1969 and extended to February 2, 1970. This was the planning period for the institute. It included a meeting of the Steering Committee at North Carolina State University at Raleigh November 19. During this period, arrangements for housing the institute participants, consultants, and work groups were made. Case studies were developed to implement the objectives of the institute. The participants who were nominated by North Carolina State University were invited, the consultants were briefed and preliminary information for participants, consultants, and publicity was disseminated.

Phase II was the implementation of the two week institute. The participants were divided into five working groups each of which selected their chairman and recorder. Presentations by the consultants were to enable the work groups to take systematic approaches to annual and long-range planning, at the local and state levels, and budgeting and evaluation for vocational programs in rural areas for youth and adults.

The case studies were deliberately structured to simulate actual conditions so as to provide practicality to analyses and solutions. The five work groups used the team approach to develop solutions and alternatives to the problems. Each participant in addition developed a proposed solution to a problem or concern in his own field of responsibility including the identification of the instruments, guidelines, models, objectives, and goals necessary for solving it.

Each work group gave an oral report of their solution to a case study problem and also submitted a written report. In addition, each work group submitted a log of the activities, discussions, and proposed solutions to the other case studies. These included information and suggestions gained from the presentations of the consultants and conferences with them.

The topics presented by the consultants and related to annual and long-range planning for rural areas followed a sequence which was designed to culminate in the solution of a variety of problems confronting vocational educators in rural areas and for various age groups.

In preparation for the Institute each participant was asked to identify a vocational education problem in the rural areas of his state or a program designed to provide vocational education to rural areas. Each participant was sent an extensive bibliography, prepared by the institute staff, of the resource material available at the University of Florida

libraries relating to rural populations and problems. Participants were requested to review these to identify those which might refer to their area of concern. Because of the significance of several of the references to problems of Rural America, each participant was asked to obtain a copy of the following to bring with him:

1. Hathaway, Dale, People of Rural America. Washington, D.C. 1968, U.S. Government Printing Office.

2. _____, Pocket Data Book, U.S.A. 1969. Washington, D.C. 1969, U.S. Government Printing Office.

3. _____, A Socio-Economic Profile of the 1968 Farm Wage Force. Washington, D.C. 1969. U.S. Government Printing Office.

Participants were also requested to bring any state publication which they had found particularly useful in making annual and long-range plans for vocational education in their states.

The packets of information and other materials provided each participant upon his arrival included:

1. The first and second annual report of the National Advisory Council on Vocational Education.

2. A Review and Synthesis of Research on Vocational Education in Rural Areas by B. Eugene Greissman and Kenneth G. Densley.

Evaluation instruments were designed by the North Carolina Center to aid in assessing the effectiveness of each institute. A pretest consisting of a Form 1 and Form 2 was administered at the beginning of the institute. Form 1 selected opinions about vocational education. Form 2 dealt with general beliefs. These were again administered at the end of the institute, plus Form 3 which sought the participants' opinions of the conduct of the institute.

The sequence of presentations began with a welcome to Florida from Dr. Carl W. Proehl, State Director of Vocational, Technical and Adult Education. He pointed out the high percentage of the nationwide population, 43% of 30 million, with incomes below $3000 annually which still live in rural areas. Although only 30%, or some 55 million of the country's total population, live in rural areas, this is a sizeable element and especially significant since only one in four of these rural residents live on farms.

Dr. Harold Hansen, Dean of the Graduate School of the University of Florida, welcomed the participants to the University, a land-grant college with nationally recognized programs in agriculture, agricultural engineering and economics and a commitment to assist in solving problems of rural people and improving their level of living.

To begin, a change in the first day's schedule was made. The Director and Co-director explained the institute schedule, procedures, facilities, and the plans and arrangements of individual and group procedures. The five work groups were identified and the framework of their organization explained. Dr. Peter Perkins keynoted the institute with a presentation of "The Planning Process: Its Nature and Elements." Special emphasis was given to the elements of planning--setting goals and defining performance objectives--which were essentials of all educational planning and most important for programs for rural areas.

The "Economic Structures of Rural Areas" was outlined by Dr. Fred Tyner as a part of the basis for planning for the rural population. The "Changing Needs of People in Rural Areas" was a tape presentation with appropriate slides.

At this point, the first case studies were introduced to provide the work groups with an opportunity to apply some of the elements of planning to simulated state and local problems in a typical state "Kenida." The second case study dealt with simulated demand for new workers resulting from technological developments in medicine. Rural manpower resources were necessary to develop skills in storing indefinitely and preparing human organs for transplanting.

The next presentation in sequence was an analysis of the planning required by the vocational amendments of 1968 as reflected in Part II and Part III of each state's plans--annual and long-range planning. Systematic planning would include consideration of goals and objectives established as measureable outlines from which valid evaluations could be made. Work sessions by groups were held after each major presentation in order to assimilate the information into solutions for the case studies and/or other problems. The fourth day began with a look at the role of data and other information in systematic planning. The need for data such as student interests, labor market, and demographic information, requires a knowledge of the sources of data. Federal and state censuses, local surveys, labor market reports, state education reports and school facility and finance reports were identified as reliable sources of data for systematic planning both annual and long range.

Much data collection relating to population and local school situations required the development of instruments to get it in usable quantities and form. Procedures for data collection, treatment, storage, retrieval and processing are the same for rural areas as for urban areas.

The processing of data for use in annual and long-range plans is more effective if alternative courses of action and models are included in the planning. The elements of such alternatives and models, and models for organization and administration of state departments which resulted in systematic planning, were presented to complete the first week. A fourth case study was distributed to the five work groups--"organizing a commercial motor vehicle driver school."

Copies of the case studies are in the appendices.

Chapter I

"Changing Needs of People in Rural Areas"
Dr. C. E. Bishop, Vice President,
University of North Carolina at Chapel Hill

Traditionally, the rural areas of the United States placed heavy emphasis upon occupational education and relatively little emphasis upon general education skills in agriculture. These were learned in on-the-job training by most people preparing for that occupation. Advancements in the agricultural occupations followed the usual ladder from the unpaid family worker to laborer to renter to owner-operator.

Similarly most industries which developed in rural areas also provided on-the-job training after employing the workers. It was assumed that between the farms and local industries sufficient employment opportunities would be available for those entering the labor force. Such assumptions did not make allowance for the effect of the growth processes of the economy upon the regional resources or the education needs of the people.

At the turn of the century more than half of the people of the United States were rural residents. Extension education from land-grant colleges provided technical assistance and scientific information about production practices for farmers to prepare people for more effective living. The farming industry was the largest employer in the nation. The emphasis in vocational education was on preparing people to farm so as to increase production.

Improvements in technology resulted in increased farm production as well as in more educational programs at land-grant colleges affecting farmers, their families, and their way of living. Technology also caused the substitution of capital for labor and therefore a change in the jobs available even though production increased. Industries were similarly affected. They became larger, production increased but the number of farms needed to serve the population decreased and the number of workers needed to provide the increase in production also decreased.

In the midwest it is estimated that the areas which constitute an effective community today is approximately a 100 times greater than was such an area in 1900. The technological changes which caused the above also caused large scale reduction in the employment of people in the natural resource based industries which predominated in rural America. The result was that millions of people left the rural areas in search of better employment opportunities elsewhere. Many of these changes became evident in the 1950's and were accompanied by changes in market structure, community

organization, and population location. The rural states and counties generally lost population. The base farm population declined from 31 million in 1920 to about 10 million in 1969.

Studies of persons who transferred from farm to non-farm employment showed that most people who transfer do not change residences. They commute to new farm jobs. Of those who do migrate the young labor force age group under 25 years of age have the highest rate. This age group also has the least invested in farming. Studies show that most migrants did not plan very long ahead of time before moving and most of them did not consider any alternatives of jobs or sources of information about jobs.

Although the non-metropolitan population in the United States is increasing, it is increasing more slowly than the metropolitan population. In 1968 thirty-six percent of the American people lived outside metropolitan areas. It should be emphasized, however, that only one-seventh of the non-metropolitan residents live on farms. The vast majority live in small cities and towns, or in rural nonfarm residences. Most of the rural residents living in the eastern half of the United States are within fifty miles, approximately one hour's driving time, of a city of 25,000 or more population. In fact, it is estimated that between eighty-five and ninety percent of the total population of the eastern half of the United States lives within fifty miles of a city with 25,000 or more population. Most of the cities of this size or larger are economically viable. Clearly, therefore, most of the people in the eastern half of the United States who live outside the major metropolitan areas live within commuting distance of cities in which employment is expanding. They also live within commuting distance of cities that could serve effectively as centers to provide the educational services, health services, and other public services for the development and conservation of human resources.

The economic structure and the growth of rural areas will continue to be affected importantly by technological changes and by changes in market phenomena in the future. The effects will be manifested by changes in the industry mix, occupational structure, and in the spatial distribution of employment and population growth. The implications of these changes for our educational institutions have been dramatic in the past and they will continue to be so in the future. The nature of the structural changes that are likely to occur is apparent. The implications of these changes for educational institutions is less clear. What can, or should, be done and the consequences are not generally agreed upon.

Clearly, only a very small minority of the rural youth should enter the occupation of farming in the future. Only one of 7 rural youth now lives on farms. It has been pointed out that only one of 12 farm youth will have an opportunity to obtain a farm large enough to generate an adequate income for a family. Clearly, therefore, only a very small proportion of the youth living on farms should receive vocational training

designed to produce operators of commercial farms. Furthermore, many of those who become commercial farmers also will engage in off-farm employment. One of each six operators of commercial farms now works off the farm 100 days or more per year, and ten percent of the commercial farm operators receive more income from off-farm work than they do from farming.

The vast majority of farm youth must find employment in occupations other than farming. Furthermore, the majority of farm youth are not likely to live in rural areas in the future. In like manner many of the youth who now live in the villages and towns in rural America will find that their communities will not be able to generate employment opportunities that fulfill their expectations. Consequently, many of them will live in urban centers in the future.

The implications for education programs are quite clear. The vast majority of the farm youth, and of the rural nonfarm youth, need general education and occupational and vocational education that is comparable in quality to that received by urban residents.

Historically, educational programs in rural areas have been oriented toward meeting what were presumed to be the special educational needs of rural people. These "special needs" were defined relative to anticipated occupational choices of rural youth. This paper has emphasized that Americans move freely between rural and urban residences, often changing occupations in the process. The great challenge of our educational institutions, therefore, is not to meet the "special educational needs" of any particular residence group, but to develop institutional forms that will provide residents of all residence groups with educational services comparable in quality and quantity.

Since such a high proportion of the rural youth are destined to migrate to urban centers and work in nonfarm occupations, it is imperative that a better job be done in occupational counseling and occupational preparation in order to rationalize migration. Although more emphasis must be placed upon nonagricultural-vocational training in the rural areas, the training programs should provide for flexibility in occupational choice. In the past, mistakes were made in training people for farming when farming opportunities were very limited. It could be equally wasteful to train people for specific nonagricultural occupations that will be adversely affected by technological changes of the future. Therefore, occupational testing and counseling programs in the public schools should be coordinated with the manpower outlook programs of the Employment Service. This becomes particularly important at the time of placement. The well established streams of migration in the nation suggest that, in the informal system now guiding migrants, the pattern of dissemination of information has a more important effect on who migrates and where they go than the potential increase in earnings. The migration process will not be rationalized until a comprehensive nationwide manpower program is established.

The problem of developing institutional structures to make educational services available to the people is as important as developing the content of education programs. It is clear that many counties, villages and the people within them have been left behind by the technological and structural changes that have taken place in rural America. Many people are now confronted with the fact that their local governments cannot provide the schools, libraries, hospitals, roads, and other social services of the quality desired. In short, the changes in industrial and population structures that have been brought about during the past few decades have undermined many local governments to the point that they are no longer able to provide the services needed.

We have made many attempts to accommodate to the structural changes, including the creation of area vocational schools, but little attention has been given to how the basic forces at work in our society are affecting the spatial distribution of population and economic activity, and particularly with reference to the ability of society to supply public services to the people concerned. One of the challenges confronting this workshop is to develop new ideas for meeting the occupational education needs of the 1970's. As this task is undertaken it should be kept clearly in mind that the rural and urban areas of the United States must be viewed as an entity. The technological and economic changes that have occurred during the past thirty years have rendered the rural-urban dichotomy virtually meaningless from the standpoint of economic and social organization. The educational institutions and their programs must reflect this change in economic structure.

Sufficient attention in our society has not been given to the fact that production technology, industry mix, occupational structure, and the pattern of growth of employment and population are interrelated. Neither has sufficient attention been given to the fact that the costs of providing public services for society also are related to the nature of the growth and distribution of its population. The structural changes that have been brought about as a result of the adoption of new technology in our society are secondary changes made in an attempt to adjust to the new technology, and for the most part do not represent changes that were planned. We have not endeavored to develop technology consistent with any particular pattern of social and economic organization. Instead, we have sought to develop technology to provide the most effecient production of commodities, and have left the pattern of economic and social organization to be determined by the state of production technology. Perhaps it is time that we concerned ourselves with fundamental questions concerning the organization of society. What organization of society spatially and structurally would yeild an efficient production of goods and services? How many cities does the nation need for efficient production of goods and services? What size should they be? Where should they be located? How should they be related in order to provide effective access to services? How can those living outside the cities obtain access to services that are comparable in quality to those provided urban residents? Until these questions receive due consideration, we shall continue to treat the problems of social and economic organization as secondary to the problems of organization for the production of goods.

Chapter II

"Economic Structure of Rural Areas"
Dr. Fred H. Tyner, Associate Professor of Agricultural Economics
University of Florida, Gainesville, Florida

It is one thing to discuss the changes that have and are taking place in rural areas (and agriculture), yet quite another to specify what the structure is at any particular time. If structure is defined as "the parameters describing the organization of the 'rural sector'," then the structure changes from one point in time to the next. As in all our attempts to deal with the complexities of the "real world" we focus only on what we subjectively feel to be the most relevant phenomena. Therefore, we are talking today of changes in numbers of farm and rural people, their incomes, their preparedness to change occupations, and their abilities to share in a higher quality of life.

The process of agricultural development has been speeded by the adoption of technological improvements in the techniques of producing farm products. Some of these adoptions (such as herbicides, insecticides, etc.) are currently being hotly debated because of their potential effect on our physical environment. Other technological innovations have had equally striking and far reaching effects on the economic, political, and social environments of a large segment of our society without creating much furor.

Large machines have created a need for larger acreages in order to realize their maximum potential in efficiency. Larger farming operations also achieve efficiencies in purchasing inputs and marketing their output. In response to this demand for larger operations, many small farms have been sold or leased to larger units. Such changes have reduced the number and increased the size of farms until we had 46% (or 2.7 million) fewer farms in 1967 than were counted in 1947. Average farm size increased from 190 to 359 acres over the period from 1945 to 1967. More than half of the farms sold in recent years went--not to housing developments and interstate highways--but to other farmers who wanted to expand their acreage. As a result, the number of smaller farms is declining, while the larger farms are increasing. The number of farms with gross sales exceeding $20,000 increased from 313,900 to 402,100 over the 1959-1964 period, for example.

Changes of such magnitude were bound to have their impact on rural residents. The number of farm operators needed was, of course, fewer. The tremendous increases in productivity per man-hour due to use of machinery and other technological improvements also reduced the number of farm workers needed. The U.S.D.A. index of production per man-hour doubled from 1949 to 1966. As productivity increased, the average number of workers engaged in agricultural production declined by 43% from 1950 to 1965.

The report of the National Advisory Commission on Food and Fiber cites a conservative estimate of the need for farm labor in 1980 to be a drop of at least 30% in farm man-hours and probably 40% in the number of people employed in agriculture.

Much of the man-hours presently available on farms is currently termed "under-employed." Add to this "surplus" availability of labor the fact that the farm birth rate will increase farm population by approximately 50% each generation and it is easy to agree with the conclusion that only about 1 in 10 farm youths can expect to operate an adequate family farm.

A necessary accompaniment to the rapid adoption of technology is the shift from farm-produced to purchased inputs. The methods of animal power, manure for soil nutrient, and home-grown seeds have been supplanted by the products of industry. Farm inputs are increasingly a product of the "non-farm" sector (witness machinery, hybrids, fertilizers, insecticides, pesticides, fungicides, mineral and vitamin concentrates, hormones and even management services). The cost structure for these non-farm produced inputs is more susceptible to price increases than are the products the farmer has to sell--increasing the pressure of the "cost-returns" squeeze felt by farmers. Such pressure is self-perpetuating because it induces the more rapid adoption of technology to lower per unit costs. Increasing the proportion of purchased inputs thereby increases the potential of farm incomes being lowered through non-farm wage increases, steel price hikes, etc. This is simply another element in the list of factors bringing about structural changes in agriculture--which have immediate impact on the rural population, both farm and non-farm.

Consider first those changes resulting directly from agricultural change. What are the gains and costs, and how are they distributed?

Briefly, consumers benefit from lower "real" food prices (as a percent of disposable income), and society as a whole benefits from the fact that scarce resources are released from agricultural production to produce more non-farm goods and services. There are also gains to farmers--those with the capital and ingenuity to adapt to change. The capital-input producing industries expand, and there are gains to their workers.

To a great extent we can measure these gains in monetary terms. Unfortunately, the measurement of costs and their distribution involves greater complexities. Persons displaced from farming incur a cost in that they must relinquish farm income, may have to relocate, and must seek non-farm jobs for which they lack the essential skills. There are indirect costs associated with training programs--where these are available.

The smaller towns and communities suffer as the farm work force declines. Businesses do a lower volume and realize lower incomes. Capital gains in farm land values are offset by capital losses in rural towns and communities. The following statements exemplify:

> "...in areas without an alternative to agriculture for employment, a rapid increase in farm size and a reduction in farm numbers appears to result in stagnation or decline in the local economy rather than growth."

> "An outflow of labor from agriculture has long been a characteristic of the process of economic development everywhere. From a narrower economic point of view it is desirable, but it does raise serious social problems if the surplus labor released by the farm sector moves at the same time from the country to the city. As long as agriculture is the main source of income in rural areas the outflow from agriculture may indeed stimulate further outflows from sectors dependent on agriculture."

As there is a migration of human resources and a resultant economic decay in many rural areas, there is also decay of a more subtle kind. The "people left behind" no longer may have access to the kinds of public and private investments necessary for economic growth and social development.

What about changes resulting from community and rural development activities and the process of industrialization? Many manufacturing plants have fled the central cities to relocate in rural areas. Unfortunately, much of this movement was undertaken to benefit from lower labor costs in rural areas and where skill requirements were moderate.

This type of industrialization often does not serve the best interests of the communities (who may tax themselves severely to obtain it). A high ratio of capital to labor is characteristic. Production using imported inputs and sale of the product in non-local markets is also usual. When these conditions are present there is no stimulus for associated economic activity such as retail outlets, related service industries, etc. The "multiplier effect" of expenditures is small.

The character of rural America is changing. As evidence of this fact we have (1) the technological revolution in agriculture, (2) the expanding influence of the urban atmosphere, and (3) the voiced demand for progress in areas of social welfare. From these influences is emerging a rural-urban society concerned with a wide range of social and economic problems for which solutions need to be found.

In order for rural areas to develop, they must be made less dependent on agriculture. The changing economic structure of agriculture makes it imperative that we create non-farm employment opportunities in rural areas--or provide rural residents with the training to enable them to migrate to useful employment. There is no advantage in keeping people in occupations where they cannot earn a decent living.

The structural changes now occurring make it increasingly difficult to separate the functions of the agricultural economy from that of the non-farm economy. It was once popular to define agricultural production as stopping at the farmer's gate--with all further movements undertaken by a well-defined middleman and called "marketing." The trend to vertical integration in financing, risk-bearing, processing, and even management services no longer permit such abbreviated definition.

The conventional education of rural youth for agricultural occupations is, likewise, outmoded because of the low rate of increase in the demand for farm commodities (i.e., as population increases), rapidly expanding productive capacity, the changing financial structure and attendently higher capital requirements, and the efficiency aspects of larger machinery and larger farm units. Comparisons of the educational levels and attainments of rural versus urban persons shows significant advantages for the nonfarm persons. Tweeten concludes that:

> "An adequate education is a necessary although not always a sufficient condition for sustained social and economic progress in rural areas. Education is regarded as a catalyst in the development process, facilitating migration, local industrial development, and other mechanisms. ... Youth in low-income rural areas lag seriously in education and training needed to farm or compete effectively with other youth for available farm jobs."

Access to education and training programs thus apparently determines to a large extent who will participate in progress.

Let me conclude with the reiteration that the rural economy of our country is changing. Technological adoptions speed up the process of change and intensify the need for rapid adjustments in economic and social institutions. The crying need in rural areas experiencing a rapid decline of agricultural opportunities is education: (1) programs of vocational training emphasizing short-run solutions for those displaced from farming, and (2) upgrading of the general education program to expand opportunities for the present and future youth of rural areas.

"Elements of PPBS"
Dr. Joseph Perkins, Planning Specialist for
Peat, Marwick, Mitchell & Company, Washington, D.C.

The elements of a planning, programming, and budgetary system are not new to most administrators. However the sequence in which the elements are organized and the clarity of terminology used to relate the elements have much to do with how well the system operates.

Definitions of the terms used and examples of narrative documentation of objectives and evaluative criteria together with program data sheets, a cost report, and a multiyear financial plan, and the sequence of events in implementing the plan will be of assistance in applying the elements to a given program.

These can be applied specifically to planning for rural areas within a state, region, or the nation.

Goals

A goal is a statement of broad direction, purpose, or intent based on the identified needs of the community. A goal is general and timeless; that is, it is not concerned with a specific achievement within a specified time period.

Objectives

Objectives are desired accomplishments which can be measured within a given time frame. Achievement of the objective advances the system toward a corresponding goal. Accordingly, objectives must be developed that support and contribute to the achievement of the established goals.

Programs

Programs are defined as a group of interdependent, closely related services, or activities progressing toward or contributing to a common objective or set of allied objectives. It is a package of related activities.

Program Structure

A program structure is a hierarchical arrangement of programs which demonstrates the relationship of activities to goals and objectives. The structure contains categories of activities with common output objectives.

Multiyear Financial Plan

The Multiyear Financial Plans (MYFP) present financial data for existing and alternative programs projected for a period of several years.

Program Memorandum

A program memorandum presents a statement of the program content, comparison of the cost and effectiveness of alternatives considered for resolving those issues in relation to objectives, the recommendations on programs to be carried out and the reasons for those decisions. Program memorandum, therefore, provides the documentation for the decisions recommended for the budget year.

Program Budget

The program budget in a PPBS is a statement of policy that relates costs to goals, objectives, and programs based upon a program structure classification. When the goals and objectives of a school district have been defined and the programs to meet these objectives have been documented, the estimated costs of these programs must be reported in the Program Budget.

Program Codes

Programs are coded by number to facilitate the collection of program data costs and statistics in a format consistent with the program structure. These data are used to control program expenditures, evaluate program effectiveness in terms of stated objectives, and to analyze the cost effectiveness of alternative programs.

PPBS ELEMENT FORM

GOAL STATEMENT

To provide all students the opportunity to develop skills in typing, shorthand, bookkeeping, and office machine operation.

DEVELOPED BY _____

OBJECTIVE STATEMENT AND EVALUATIVE CRITERIA

Ninety percent of graduating Business Curriculum students shall meet the folowing standards:

Typing - 70 words per minute as measured by the IBM Test with 90% accuracy

Shorthand - 100 words per minute as measured by the Gregg test.

Bookeeping - Demonstrate understanding of journals, income statements, and balance sheets as determined by decision tests.

Office Machine Operation - Mean score equal to national average on NCR test

DEVELOPED BY _____

PROGRAM DESCRIPTION SUMMARY

This program is designed to allow students to develop skills in the areas of typing, shorthand, bookkeeping, and office machine operation sufficient to gain employment using these skills. This program will include practice with typical problems and situations found in actual employment situations. Contacts will be maintained with the local business community to aid students in obtaining employment.

DEVELOPED BY _____

PROGRAM TITLE _____

PROGRAM ID NO. _____ PROGRAM NO. _____ PROGRAM LEVEL ____

SUPPORTED PROGRAMS _____

SUPPORTING PROGRAMS _____

Narrative Documentation of
Objectives and Evaluative Criteria

PROGRAM DATA SHEET

Mathematics
PROGAM TITLE

14090
PROGRAM CODE

General
FUND

All Schools
LOCATION

V
PROGRAM LEVEL

RESOURCE REQUIREMENTS	CURRENT YEAR		BUDGET YEAR		2nd YEAR	3rd YEAR	4th YEAR	5th YEAR
	QTY	AMOUNT	QTY	AMOUNT				
1. ESTIMATED A.D.A.	800		1300		1,500.	1,500.	2,000.	2,000.
2. TEACHER POSITIONS	5		9.5		15.	15.	17.5	17.5
3. CERTIFICATED SALARIES		$50,000.		$100,000.				
4. CLASSIFIED SALARIES								
5. EMPLOYEE BENEFITS	8%	4,000.	8%	8,000.				
6. BOOKS AND SUPPLIES		2,500.		5,400.				
7. EQUIPMENT REPLACEMENTS				1,000.			2,000.	
8. SUPPORT PROGRAM SERVICES		800.		1,300.				
9. OTHER SERVICES								
10. CAPITAL OUTLAY				3,000.			24,000.	
11. OTHER OUTGO								
12. TOTAL DIRECT COSTS		57,300.		118,700.				
13. TOTAL DIRECT COST (EXCL. LINES 7 & 10)		57,300.		114,700.				
14. COST/ADA (LINE 13)		71.62		88.23				
15. PROJECTED COST INCREASE/ADA					4.00	5.00	5.00	5.00
16. PROJECTED ADA COST				88.23	92.23	97.23	102.23	107.23
17. PROJECTED ADA				1,300.	1,500.	1,500.	2,000.	2,000.
18. PROJECTED COST (EXCL. LINES 7 & 10)				114,700.	138,345	145,845	204,460.	214,460.
19. EQUIP. REPLACEMENT & CAPITAL OUTLAY				4,000.			26,000.	
20. TOTAL PROJECTED DIRECT COSTS				118,700.	138,345.	145,845.	230,460.	214,460.
REVENUE SOURCES:								
21. FEDERAL		3,000.		7,700.				
22. STATE		3,000.		7,700.				
23. COUNTY								
24. LOCAL		51,300.		103,300.	138,345.	145,845.	230,460.	214,460.
25. TOTAL		57,300.		118,700.	138,345.	145,845.	230,460.	214,460.

RECOMMENDED BY: DATE

BOARD ADOPTION DATE

Sample of Program Data Sheet

LEVEL II PROGRAM COST REPORT

PERIOD ENDING _____

CODE	OBJECT CLASSIFICATION	LEVEL II - PROGRAM					LEVEL I
		1 INSTRUCTION	2 INSTRUCTIONAL SUPPORT	3 PUPIL SERVICES	4 GENERAL SUPPORT	5 COMMUNITY SERVICES	TOTAL DISTRICT
	DIRECT COSTS						
	CERTIFICATED SALARIES:						
110	TEACHERS	$132,000				$ 2,000	$134,000
120	PRINCIPALS				$10,000		10,000
	:						
170	SUPERINTENDENTS				20,000		20,000
	SUBTOTAL	$132,000			$30,000	$ 2,000	$164,000
	CLASSIFIED SALARIES:						
210	TEACHING AIDES	$ 4,000	$XXX				$ 12,000
	SUBTOTAL	$ 4,000	$XXX				$ 12,000
300	EMPLOYEE BENEFITS	$ 9,200	$XXX	$XXX	$XXX	$XXX	$ 26,000
	BOOKS, SUPPLIES & EQUIPMENT REPLACEMENTS:						
410	TEXTBOOKS	$ 600	$XXX				$ 7,000
420	OTHER BOOKS	400	XXX	$XXX			8,000
430	INSTRUCTION SUPPLIES	1,900	XXX				$ 21,000
440	OPERATING SUPPLIES			XXX	$XXX	$XXX	XXX
450	OFFICE SUPPLIES		XXX	XXX	XXX	XXX	XXX
460	EQUIPMENT REPLACEMENTS	860		XXX	XXX		7,000
470	EQUIPMENT REPAIRS						
	SUBTOTAL	$ 3,760	$XXX	$XXX	$XXX	$XXX	$ 42,000
	SERVICES AND OTHER:						
510	CONSULTANTS						
520	TRAVEL		$XXX		$XXX		$ 4,000
540	INSURANCE				XXX		18,000
550	UTILITIES						26,000
590	INTER PROGRAM CHARGES	$ 2,500		$XXX		$ 4,000	0
	SUBTOTAL	$ 2,500	$XXX	$XXX	$XXX	$ 4,000	$ 48,000
	CAPITAL OUTLAY:						
610	BOOKS						
620	NEW EQUIPMENT	$ 1,000			$XXX		$ 4,000
	SUBTOTAL	$ 1,000			$XXX		$ 4,000
	OTHER OUTGO:						
710	DEBT SERVICE						
	SUBTOTAL				$XXX		$ 8,000
	TOTAL DIRECT COSTS	$152,460	$80,000	$80,540	$85,000	$ 6,000	$404,000
	ALLOCATED INDIRECT COSTS	115,000	80,000	38,000	85,000	12,000	0
	TOTAL COSTS	$267,460	0	$118,540	0	$18,000	$404,000

Sample of Level II Program Cost Report

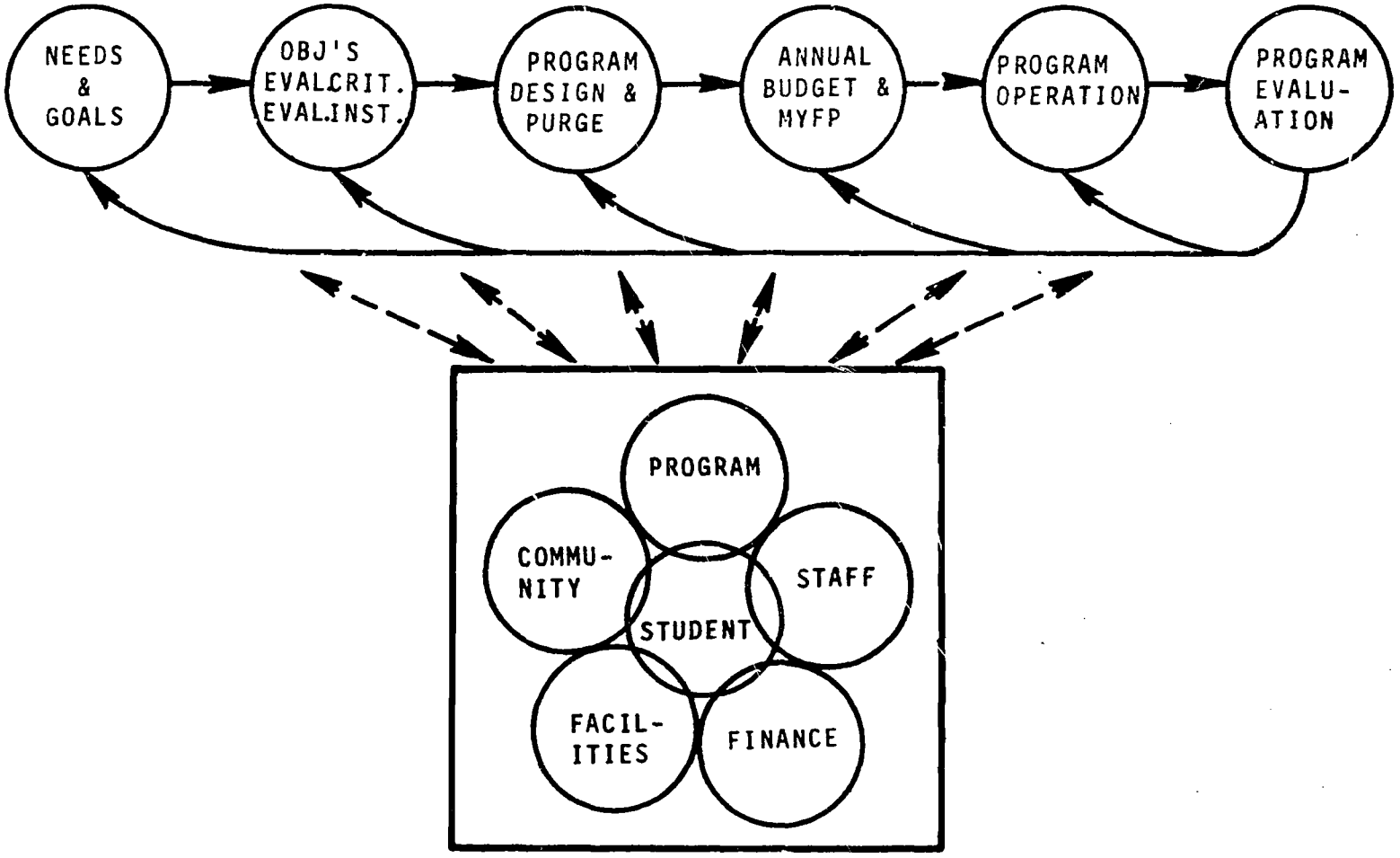
TENTATIVE BUDGET AND MYFP

BUDGET YEAR _____

PROGRAM			ESTIMATED COSTS												BUDGET YEAR REVENUE SOURCES		
			CURRENT YEAR		BUDGET YEAR		2ND YEAR		3RD YEAR		4TH YEAR		5TH YEAR				
LEVEL	DESCRIPTION	CODE	TOTAL	PER OUTPUT UNIT	TOTAL	PER OUTPUT UNIT	TOTAL	PER OUTPUT UNIT	TOTAL	PER OUTPUT UNIT	TOTAL	PER OUTPUT UNIT	TOTAL	PER OUTPUT UNIT	FEDERAL	STATE	LOCAL
II	INSTRUCTION	1															
III	BASIC	105															
IV	HIGH SCHOOL	1054															
V	MATHEMATICS	105413															
VI	ALGEBRA	105413XX	$11,000	$7.50	$12,000	$7.60	$14,000	$7.10	$15,000		$16,000		$17,000				
VI	GEOMETRY	105413XX	12,000	9.00	14,000	9.00	14,000	8.00	15,500		16,000		16,000				
VI	TRIGONOMETRY	105413XX			8,000	5.00	11,000	4.00	12,500		13,500		14,000				
	SUBTOTAL		$23,000	$8.75	$34,000	$8.40	$39,000	$6.50	$43,000	$6.50	$45,500	$6.50	$47,000	$6.50	$6,000		$28,000
V	ENGLISH	10540S															
VI	CREATIVE WRITING	10540SXX	$15,000	$9.00	$16,500	$8.53	$17,000	$6.00	$18,000		$19,000		$20,000				
VI	LITERATURE	10540SXX	11,000	8.00	12,000	8.20	10,000	6.50	12,000		13,000		11,000				
	SUBTOTAL		$26,000	$8.15	$28,500	$8.30	$27,000	$6.40	$30,000	$6.40	$32,000	$6.40	$31,000	$6.40			$28,500
III	TOTAL BASIC	105	XXX	XX													
III	TOTAL SPECIAL	110	XXX	XX													
III	TOTAL VOCATIONAL	115	XXX	XX													
III	TOTAL COMPENSATORY	120	XXX	XX													
III	TOTAL CONTINUING	125	XXX	XX													
II	TOTAL INSTRUCTION	1	XXX	XX													

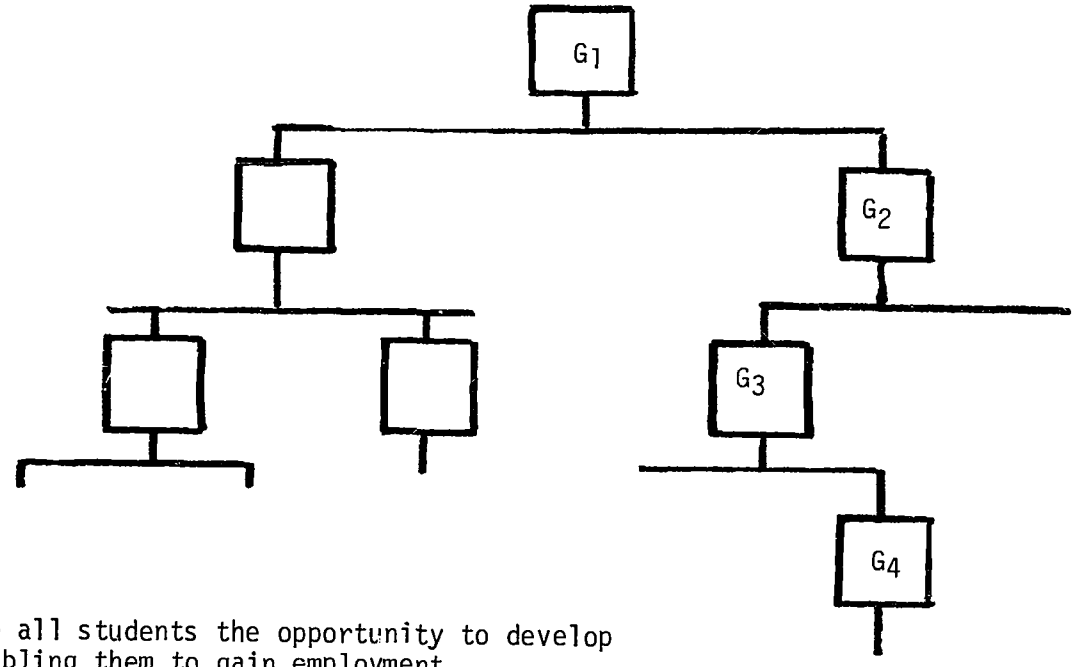
Sample Multiyear Financial Plan

PLANNING, PROGRAMMING, BUDGETING SYSTEM



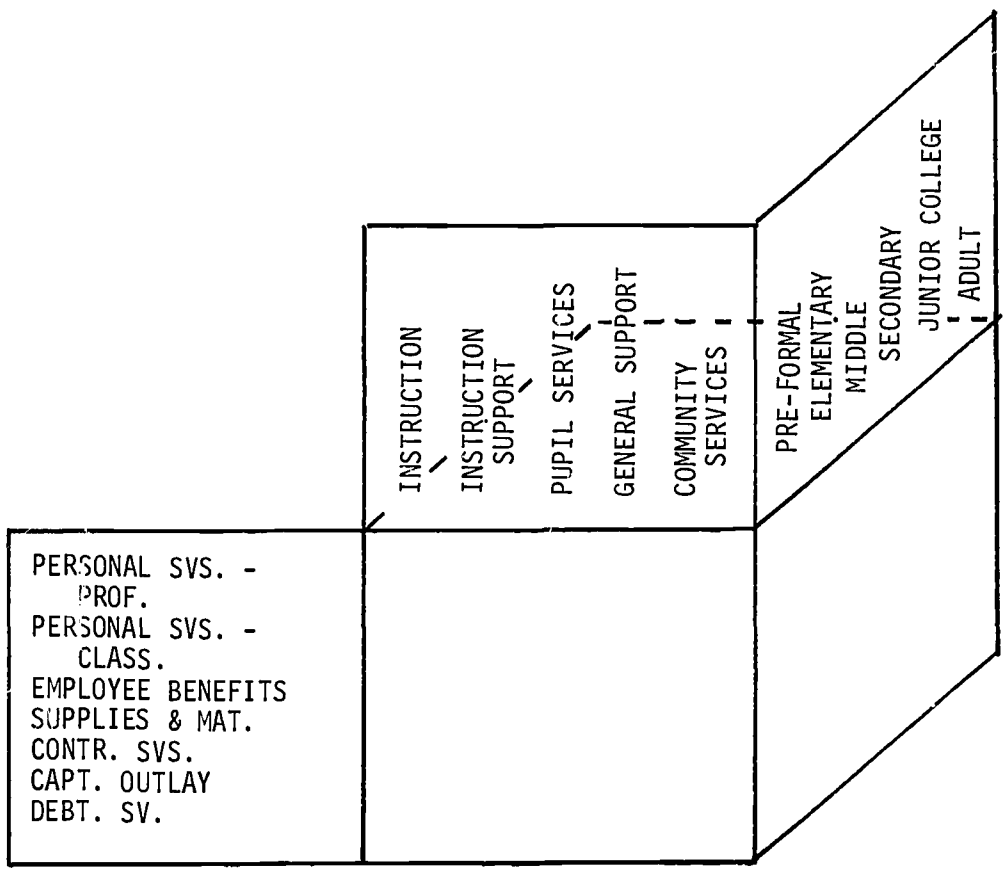
EDUCATIONAL MANAGEMENT INFORMATION SYSTEM

TYPICAL GOAL STRUCTURE



- G_1 - To provide all students the opportunity to develop skills enabling them to gain employment
- G_2 - To provide all students the opportunity to develop skills in business, home economics, and agriculture
- G_3 - To provide all students the opportunity to develop skills in typing, shorthand, bookkeeping, and office machine operation
- G_4 - To provide all students the opportunity to develop skills in bookkeeping

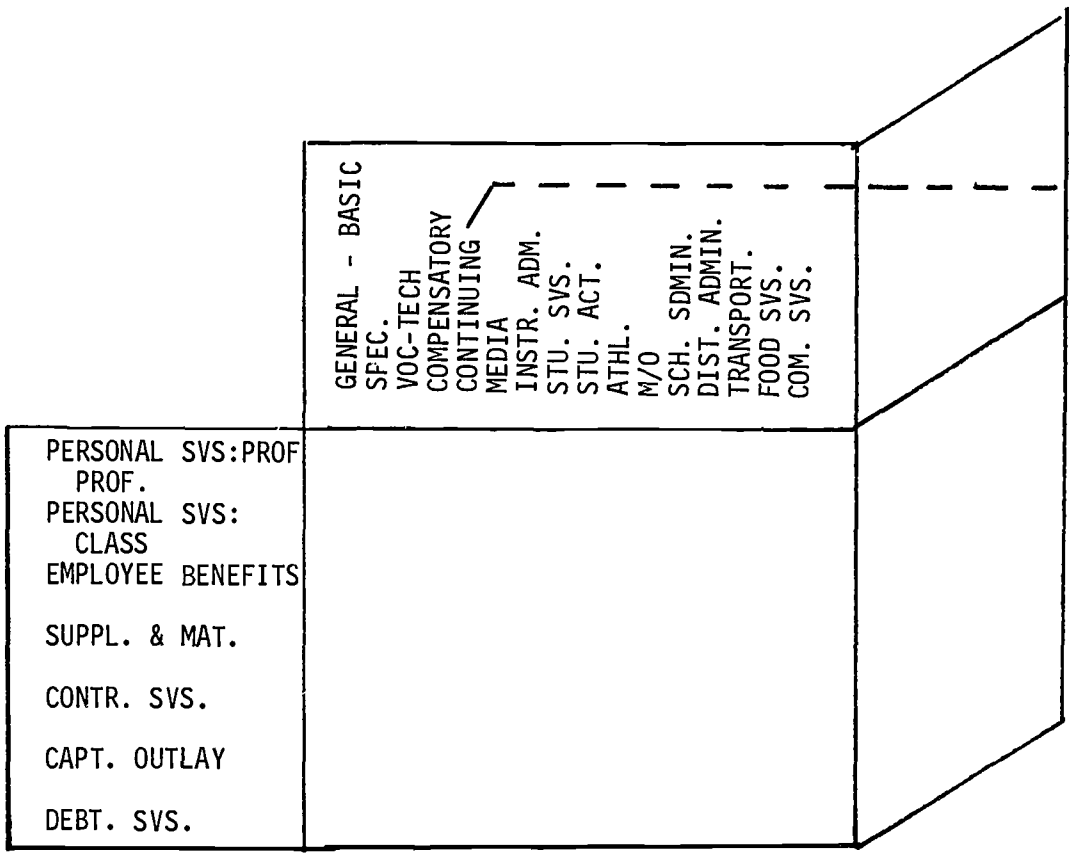
PUBLIC SCHOOL PPBS MODEL



LEVEL II -

PROGRAM - ACTIVITY/OBJECT/LIFE SPAN MODEL

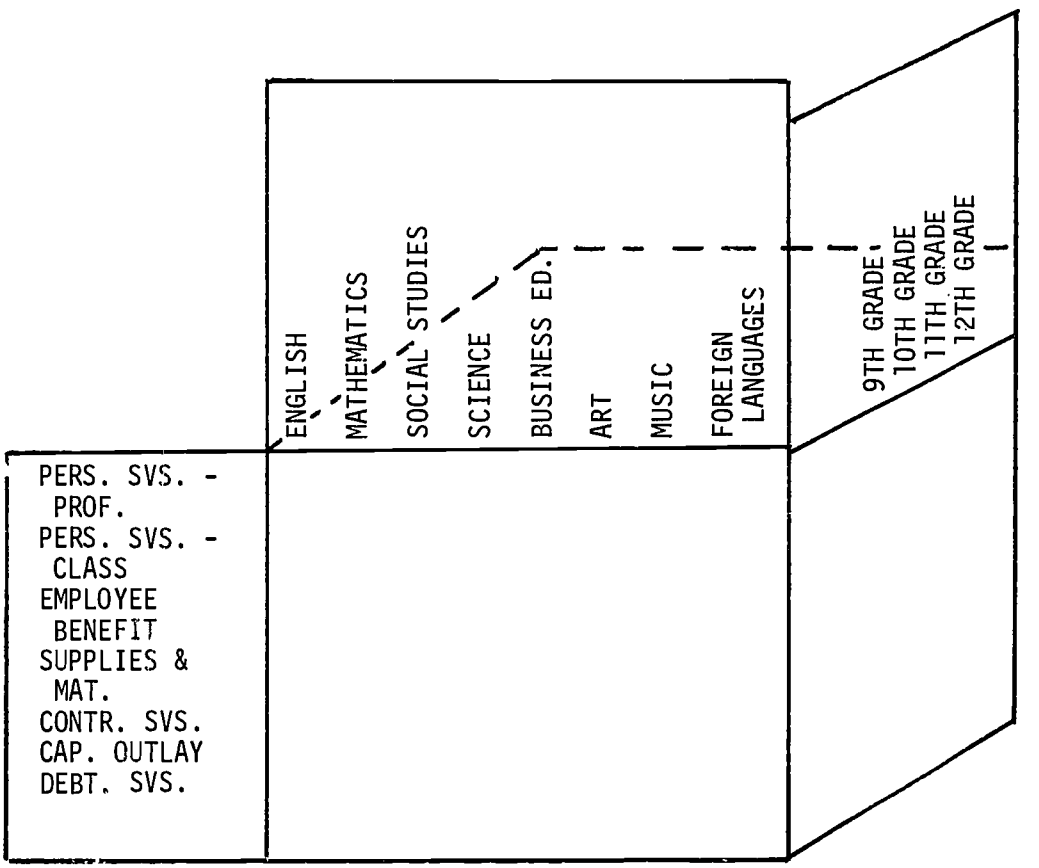
PUBLIC SCHOOL PPBS MODEL



LEVEL III

PROGRAM - ACTIVITY/OBJECT/LIFE SPAN MODEL

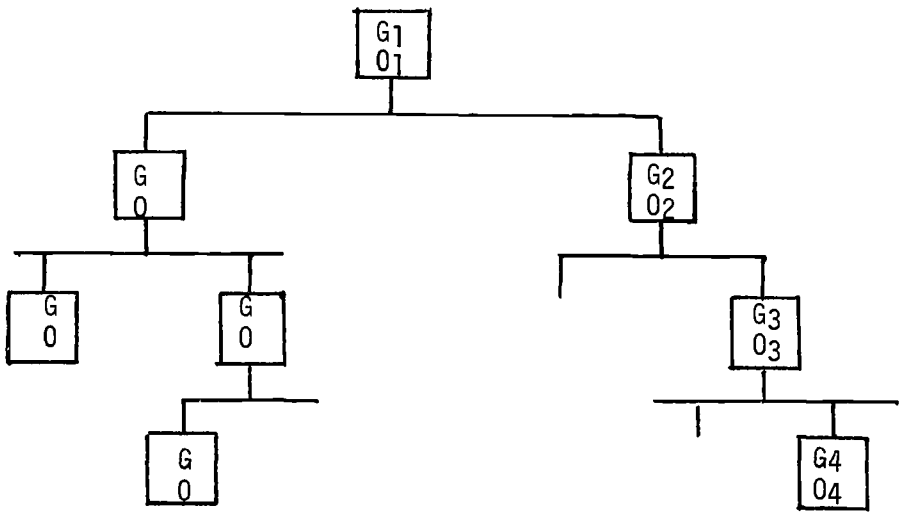
PUBLIC SCHOOL PPBS MODEL



LEVEL IV -

INSTRUCTIONAL PROGRAMS/OBJECT/SECONDARY BY GRADES

TYPICAL OBJECTIVES STRUCTURE



O_1 For ninety percent of the graduating seniors that wish to enter the labor force to gain employment within three months of graduation as measured by a district survey

O_2 For ninety percent of graduating seniors that wish to enter the labor force to gain employment as desired in business, or agriculture within three months of graduation as measured by a district survey

O_3 For ninety percent of the business curriculum students to meet the following standards:

Typing - 40 words per minute as measured by the IBM Test with 90 percent accuracy

Shorthand - 60 words per minute as measured by the Gregg Test with a 2000 word vocabulary

Bookkeeping - Demonstrate understanding of journals, income statements, and balance sheets as determined by classroom tests

Office Machine Operation - Mean score equal to national average on NCR Tests

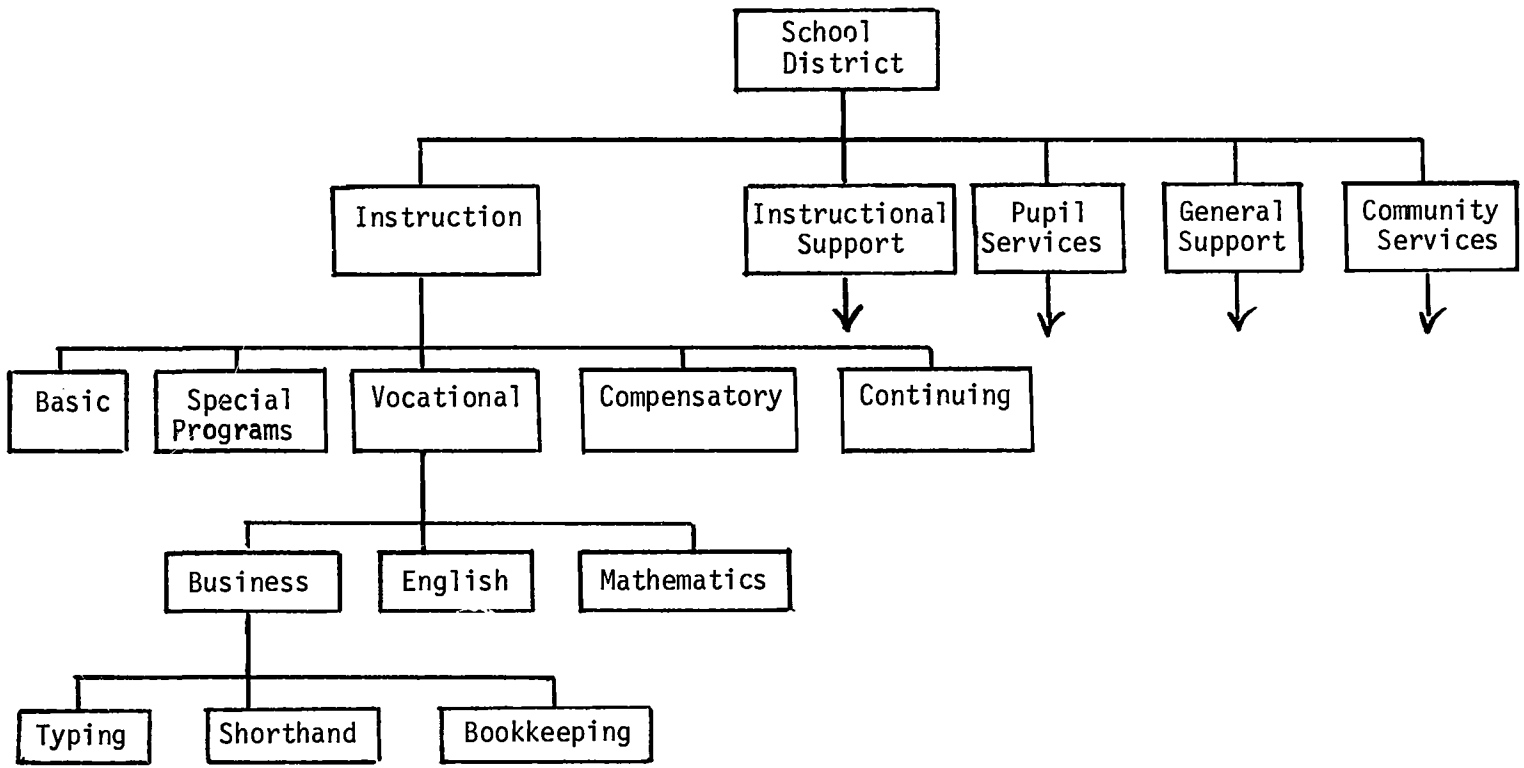
O_4 Upon course completion ninety percent of students will be able to accomplish the following based on classroom tests

State and understand the basic accounting equation of double entry bookkeeping

Understand the function of and make journal entires

Understand three depreciation calculation methods

TENTATIVE PROGRAM STRUCTURE



Techniques for problem solving

1. Define problem
2. Date gathering and fact finding
3. Analysis of facts
4. Program of facts

   Develop recommendations

   Develop man/time staff needs

   Develop facility/equipment needs

   Develop implementations and maintaining plan

   Make progress reports/schedule

Task Questions

1. What is purpose of this project?
2. What are the parameters of our responsibility?
3. What are the goals of the project?
4. What are the quantifiable objectives?
5. What are the constraints we must deal with?
6. What programs, within the constraints, will meet the objectives?
7. Are there alternative program possibilities?
8. Can we develop evaluation criteria and techniques for measuring the effectiveness of programs selected?
9. What resources will be needed?
10. What are the time constraints we are dealing with--for planning, development, implementation, and maintaining?

Chapter IV

"Overview of Planning Required by the Vocational Education Amendments of 1968"
Dr. G. W. Neubauer, Director, Program Services
Florida Department of Education.

The 1968 Amendments are basically a mandated planning document. The significance of the provisions of the amendments for State plans is separating administrative and fiscal policies, procedures and goals from planning. Part I of the State plans contains the administrative and fiscal policies and procedures; Part II the annual plans and Part III the five-year plans which must be revised annually. Much of the emphasis is to assist disadvantaged and handicapped persons wherever they may be. A review of the Amendments would include the following:

1. Purpose: To maintain, extend and improve vocational education opportunities so that all persons in all communities having need for such training will have access to it. Training must be realistic in terms of employment opportunities and the needs, interests, and abilities of the students.

2. National and State Advisory Councils:

   a. National council shall review and evaluate programs operated under the amendments giving attention to possible program duplication of post-secondary and adult programs in the same geographic areas.

   b. State Councils perform the same function with regard to state programs and local programs as part of their evaluative responsibility.

3. Use of base allotment is to be for:

   a. Target populations (high school, post high school, out-of-school youth and adults and disadvantaged.

   b. Construction of area vocational education facilities (high school, maybe day junior college, maybe disadvantaged, etc.)

   c. Planning for providing training through arrangements with private institutions (This one of the provisions possible)

      1. If they can make a significant contribution to meeting objectives of the Plan.

2. Can provide comparable training at lower cost

3. Can provide equipment or services not otherwise available (if they can do it well or better)

d. Need for staff: Projecting the need for teachers, administrators, supervisors and other ancillary services personnel, and developing a plan to meet that need.

1. Master plan for teacher education institutions (to meet the requirement of amendments)

2. County master plans for staff development in Florida is part of Minimum Foundation Program

4. Provisions of State Plans for Planning and Coordination:

a. Prepared in consultation with the State Advisory Council (Planning must be with them--continuous three to five year plan)

b. Establishes a three to five year program plan which affords satisfactory assurance of substantial progress toward meeting the vocational education needs of all potential students in the State.

c. Sets forth an annual program plan which is built around needs and goals of local educational agencies as expressed by the long-range plan and recommended by the State Advisory Council in its annual review and evaluation.

d. Planning required to establish policies and procedures to be followed by the state in distributing funds to local educational agencies in terms of due consideration being given to:

1. Results of periodic evaluation at both the state and local levels.

2. Relative vocational needs of all population groups in all geographic areas of the state in terms of:

a. Persons with academic and socio-economic handicaps

b. Physically and mentally handicapped
(Local educators need to assess their potential for service to determine the size and location of such groups)

3. Relative ability of local education agencies to provide needed resources. Criteria include:

a. Area Redevelopment counties identified by the Department of Commerce.

b. Depressed counties or areas within counties identified in the State CAMPS report

c. Others: (These are to be compared to state totals)

1. Number unemployed

2. Families with less than $3,000 annual income

3. Number of persons on public welfare

4. Number of persons with less than a fifth grade education, 1960 census figures.

4. Improve qualifications of professional personnel and insure that qualifications reflect a direct relationship with need for personnel.

5. Cooperative arrangements with employment service to share information

6. Cooperative arrangements with other agencies and institutions dealing with manpower needs and job opportunities

5. Planning and coordinating Provisions of Local Plans

a. Developed in consultation with representatives of the educational and training resources available to the local area

b. Programs designed to contribute substantially to career development (not dead-end type--careers with a future)

c. Include assurances of adequate planning to meet the needs of all potential students in the area (private school students as well as public school students)

d. Plan related to comprehensive manpower plan (if any)

e. Indication of how and to what extent requested funds will assist in meeting the needs of all potential students.

6. Research and Training

a. Establishment of research priorities for Research Coordinating units

b. Testing of research findings in pilot or experimental programs

c. Implementation of research findings and of successful pilot and demonstration projects.

d. Dissemination of research findings.

e. Curriculum development (illustration of activity)

f. Identification of public service aide careers (mental and physical health, recreation, education, child care, education, municipal services)

1. Projects to insure cooperation of public and private sectors in getting people employed.

2. Program evaluation and evaluating aide's effectiveness

7. Exemplary Programs

a. Devise new ways of bridging gap between school and work for in- and out-of-school youth and to promote greater cooperation between education and manpower agencies (and other agencies)

1. Planning needed to inform youth of the broad occupational spectrum and of specialized career requirements

2. Planning for supervised cooperative work experience

3. Intensive guidance and counseling resulting in job placement

4. Curriculum improvement (examples: health & attitude)

5. Part-time continuation school (the dropouts should be encouraged and allowed to return to school part-time)

6. Planning secondary school projects to provide preprofessional preparation for potential vocational education teachers (get youth who want to become teachers, administrators, etc., interested)

b. Coordination of these activities with other public and private agencies having a similar purpose.

8. Planning for Residential Schools

a. Determining size and location, considering existing vocational education facilities.

1. Determining student selection criteria and selecting students in terms of them

2. Labor market analyses to determine occupations for which there is a present and continuing need

9. Consumer and Homemaking Education

   a. Placing greater stress on consumer education

   b. Planning for greater consideration to be given to social and cultural conditions and needs of youth and adults, especially those in economically distressed areas

10. Planning for Cooperative Vocational Education Programs

   a. Provide training opportunities not otherwise available

   b. Cooperation with employment service, labor groups, and employers in establishing training and placement opportunities (May have to pay employer to take these on)

   c. Identification of high youth unemployment and school dropout areas

11. Work-Study (has not been funded but is in the amendment)

   Identification of areas of high dropout rates and youth unemployment Curriculum Development

12. Title II Education Professions Development Act (Part F)

   Planning for determining professional development needs of state and local vocational education personnel, determining resources available and needed for meeting those needs, and establishing priorities.

13. Planning programs to meet objectives

   a. Exchange of teachers and industrial supervisors or technicians to upgrade the competencies of both (taken from Title II)

   b. In-service training programs for vocational teachers, supervisors, and administrators

   c. Short-term or long-term preservice and in-service training programs to improve the qualifications of persons entering or reentering the field of vocational education

14. Planning is especially mandated in the following areas:

   a. Identifying and planning for target populations, particularly the disadvantaged and handicapped.

b. Identifying and planning for high dropout and youth unemployment areas.

   (Dropouts particularly significant for rural areas although they might not be so visible and many gravitate to cities)

c. Planning for program development in cooperation with other public and private agencies having similar goals.

d. Planning for placement and follow-up of trainees

e. Planning for innovative programs and projects which meet the goals of vocational education more effectively

f. Planning for orderly flow of youth through vocational education programs

   1. Articulation between inst uctional levels and among kinds of institutions (between high school and junior college)

   2. Keeping repetition and recycling to a minimum

g. Planning to define program outcomes in measurable terms so that progress toward their achievement may be assessed and fiscal alternatives considered (cost-benefits, systems approach). Can put dollar figures in cost.

Chapter V

"The Role of Goals and Objectives in Systematic Planning"
Dr. L.A. Sims, Director of Planning, Florida Department of Education
Tallahassee, Florida

Systematic planning in today's industrial and educational world more and more relates to PPBES. A Planning, Programming, Budgeting and Evaluation System is designed to help vocational educators make appropriate decisions on the allocation of resources among alternative ways to attain identified objectives. Properly implemented, it has the potential for minimizing the piecemeal, fragmented, and last minute, program evaluation which tends to occur under present planning and budgeting practices. Distinctive characteristics of a planning, programming and budgeting system are:

1. It focuses on identifying fundamental objectives and relating all activities, regardless of organizational placement, to these objectives.

2. It explicitly considers future implementations of present activities and programs.

3. It considers all pertinent costs--capital, non-capital and associated supporting costs.

4. It is a systematic analysis of alternatives, and is often referred to as program analysis. It involves:

   a. The identification of objectives,

   b. An explicit, systematic, identification of alternative ways of carrying out the objectives,

   c. An estimation of the total cost of each alternative,

   d. An estimation of the expected results of each alternative, and

   e. A presentation of the major costs and benefit trade-offs among the alternatives along with the identification of major assumptions and uncertainties.

The systematic identification and analysis of alternative ways to achieve objectives is the cornerstone of planning, programming and budgeting for vocational education.

The analysis of program goals should result in the identification and documentation of:

1. objectives involved

2. feasible alternatives for achieving each

3. the best available estimates of total program costs for each year considered (3-5 years)

4. the best estimates of benefits and/or penalties relevant to the objectives for each year considered

5. the major assumptions and uncertainties associated with each alternative

6. the importance of proposed programs on other programs, other agencies, etc. in the system.

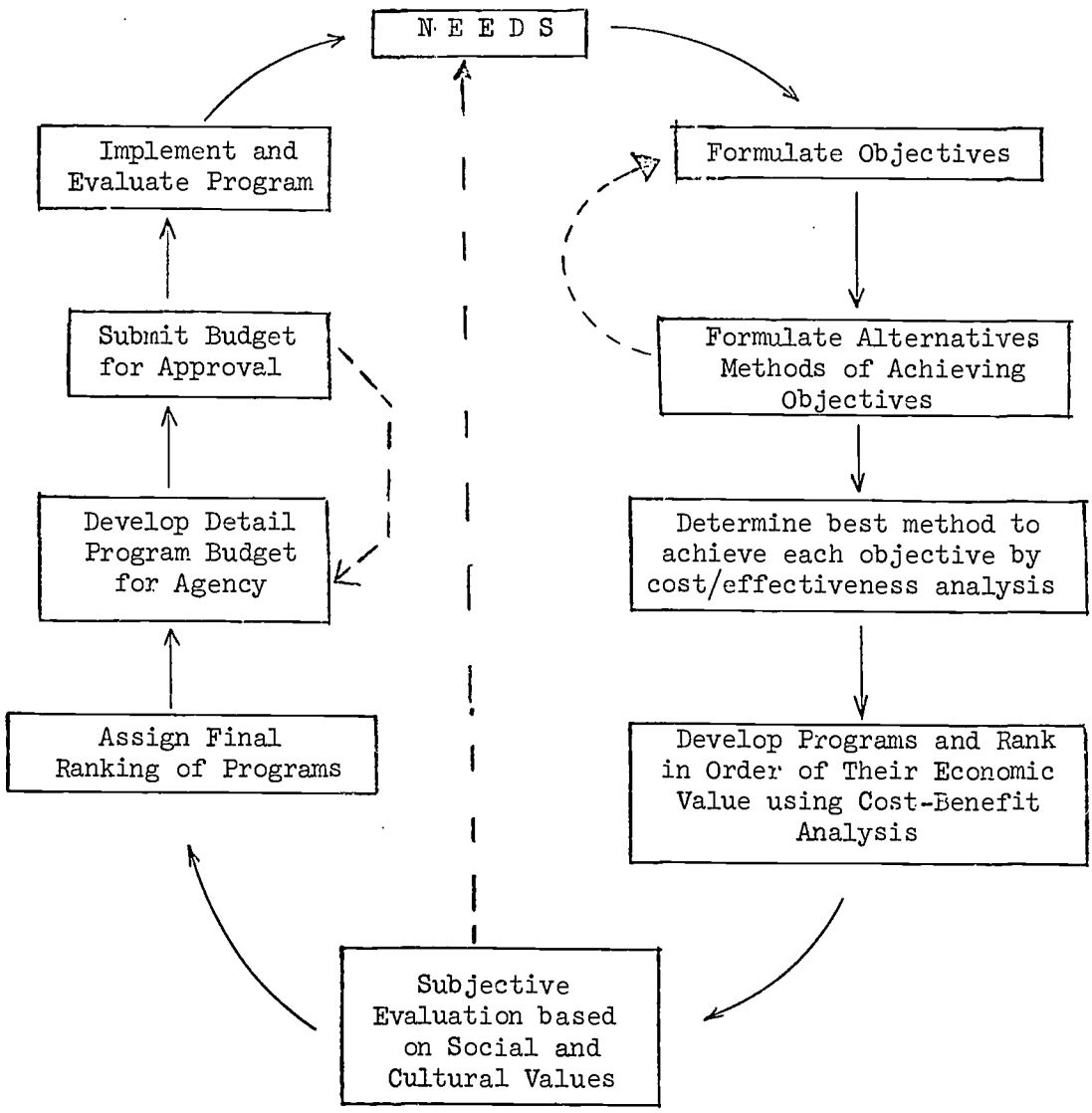
Program analysis is not easy. Many constraints will be identified, including political and legislative constraints. Hopefully, as the system assists to indicate the potential penalties arising from these constraints legislative decision makers will be influenced to work for changes. Many quantitative tools are available from such fields as economics, mathematics, computer sciences, etc., which can and should be used on the problems of program analysis. Some important limitations on the undertaking of meaningful analysis are:

1. problems in defining real objectives

2. presence of hard to measure benefits

3. inadequate data relevant as to what effect each alternative course of action will have on objectives as well as information describing where we are today

4. difficulties in connecting a time stream of costs and benefits and not simply the evaluation of costs and benefits for a single point in time.


N E E D S
Formulate Objectives
Formulate Alternatives Methods of Achieving Objectives
Determine best method to achieve each objective by cost/effectiveness analysis
Develop Programs and Rank in Order of Their Economic Value using Cost-Benefit Analysis
Subjective Evaluation based on Social and Cultural Values
Assign Final Ranking of Programs
Develop Detail Program Budget for Agency
Submit Budget for Approval
Implement and Evaluate Program
= Flow
= Feedback

Clearly, an information system organized around long-range and annual objectives of vocational education for rural or urban areas is necessary. Collection, summarization, and analysis of information is costly, therefore, essential data requirements must be identified.

Graphically, the system described in the above paragraphs can be depicted in the elementary model shown below.

The model depicts a great deal more than the Wednesday Section of your program. It is included to indicate the place of planning in an overall system of PP&B of vocational programs for persons living in rural areas.

Planning consists of recognizing the mission, formulating goals and objectives.

Mission

Recognizes mandates imposed by state and federal legislature and other policy-making groups.

Goal Formulation

Goals must be formulated consistant with recognized mandates.

1. Goal Defined - long-range accomplishments toward which programs are directed to accomplish the recognized mission.

   Goals are not measurable

2. Types of Goals -

   a. Independent

   b. Dependent

   c. Conflicting

Formulation of Objectives

Statements of objectives describe the outcomes. (ultimate product) to be accomplished in achieving the Goals. A statement of objective must describe what the expected outcome is to be and the conditions which relate to the outcome and thus it is measurable. To help you write objectives I have prepared a worksheet designed to identify specific performances, conditions and criteria for measuring attainment of those specified performances contained in a well stated objective. Some examples of acceptable objectives are:

1. To train 10% of the unemployed labor force per year and place them in jobs

2. To train 5,000 students per year as employable nurse's aids

3. To enable the student seeking an entry level stenographer job to reach a transcribing proficiency of 80-120 words per minute

4. To increase the number of electronics technicians trained by 15% per year

It is necessary to state objectives in measurable terms for the following reasons:

To determine when objectives are accomplished

To identify areas of potential failure in time to make corrections

To identify what is needed--the difference between products desired and products that already exist.

To collect data about the degree of success of each objective

To permit final evaluation on the basis of facts concerning the ultimate product

Benefits to be derived from measurable objectives are:

Facts are available rather than opinions for determining policy, setting future priorities and for allocating material and human resources.

Programming involves the identification of alternative ways to accomplish objectives. The question of how the desired outcomes or products can be realized is now pertinent. Here the planner becomes involved in determining existing conditions as a basis for choosing techniques, scheduling inputs with reference to outputs, and costing out items, to develop feasible alternative ways of achieving identified objectives. It is at this point that the planner must have certain input and output data and other information available.

Worksheets for Writing

Program Objectives

1. What specific performance does this program refer to?

2. What are the means and conditions by which this performance should take place?

3. What level of performance is required?

4. How will accomplishments be measured?

THE WRITTEN OBJECTIVE

ESSENTIAL ELEMENTS IN LONG-RANGE PLANNING
OF VOCATIONAL-TECHNICAL EDUCATION PROGRAMS

Essential Elements Listed in order of Importance	Delineation of the Element
I. Status and conditions of the State	I. Including a description of: A. Present and projected: 1. Population 2. Economic conditions 3. Manpower needs B. Available resources to provide services
II. Establish long-range goals	II. Open ended and no time frame
III. Establish priorities	III. Identify critical needs and list in order of priority
IV. Develop quantifiable objectives	IV. Establish measurable objectives to achieve identified priorities within the time frame of the planning
V. Develop strategy to achieve objectives	V. Identify alternatives including a cost analysis of each
VI. Program selection	VI. Choose the appropriate alternative in relation to financial, political and economic constraints
VII. Financial projections	VII. A build up of cost based upon the cost analysis of selected alternatives included in the program within the time span of the plan
VIII. Annual Program Budget	VIII. Cost of program services and activities to be implemented during the budget year

Chapter VI

"Role of Data and Other Information in Systematic Planning"
Dr. John Saunders, Professor, Department of Sociology
University of Florida, Gainesville, Florida

Inasmuch as rural youth form a class of persons and it is to them them that rural vocational education is directed, it is apparent that on the one hand data are needed with regard to the numbers and characteristics of this class of person and that on the other, since it is a demographic category, considerable information is available.

Yet, one fact should by now be apparent. Not all farm youth enter farming. Indeed, probably not more than one third of the sons of farmers enter farming as a lifetime occupation.

What then are the occupational aspirations and eventual occupational choices of rural youth faced with a rapidly changing rural environment characterized by phenomenal advances in agricultural technology so that nation-wide between 1955 and 1965, there was a 17 percent decrease in the number of farmers and of farm laborers? What are the occupation related educational needs of these members of our society? Who's going to farm and who's going to be otherwise occupied?

A number of studies have attempted to answer these questions. In Kentucky it was found that only 35 percent of male high school seniors interviewed planned to go to college and only 29 percent of female seniors had such plans. Only 29 percent of the boys and 16 percent of the girls planned to stay in their home county after graduation.

In Iowa, it was found that boys planning to farm on completion of high school were less likely to plan to continue their education beyond high school than boys planning nonfarm careers. Of those planning to farm, 76 percent expected to do so immediately after completing high school, but 68 percent of the boys planning nonfarm occupations intended to obtain additional training before taking a job. Similarly, nearly one half of the boys planning nonfarm careers planned to go to college while less than one fifth of the boys planning to farm intended to do so.

This same study also indicated, however, that the availability of facilities has an influence on decisions regarding education beyond high school. When asked to state their plans following graduation, only 4 percent of the boys planning to farm and 15 percent of the boys not planning to farm indicated that they would like to go to trade school. Yet, when asked if they would like to attend a trade school if there were one

within driving distance from their homes, 45 percent of the boys planning to farm and 55 percent of those planning non farm careers said that they would.

The level of training necessary for most jobs, including agricultural ones, is increasing. Young people can acquire basic training and some specialization in the high schools of many states. But it is becoming increasingly necessary to plan for training and education beyond the high school level. The Iowa study revealed, however, that 61 percent of the boys who planned to farm had no plans for training beyond high school while only 10 percent of the boys planning to go into non-farm occupations had no such plans. This is unrealistic for at least two reasons. Farm operators today need all of the education, training and experience that they can get and not all of the boys who enter farming will devote their entire lives to it. They may still seek their ultimate careers in non-farm employment. If so, they'll be competing with those who have had more training and education beyond high school.

Nine out of ten farm and non-farm rural youth graduating from high school must find jobs outside of farming. Sixty percent of all rural graduates do not plan on college and eighty to ninety percent of these are not ready to take a job. These youth score lower on academic tests. They do not react as do college bound youth to certain personality tests. Serious concern needs to be given to post-high school education. Rural youth cannot get as good jobs as urban youth. Greatly to blame are rural schools which are generally poorer than their urban counterparts. Also contributing to this consequence is the fact that many rural youth do not stay in school and even more do not go on to college, even though the program of most rural high school is intended primarily to prepare students for college.

Post-high school education is needed by rural youth not planning on going to college. This is supported by a study in which tests were given to 2,326 rural youths. Tests were on abstract reasoning, verbal reasoning, intelligence, natural and social science reading, writing and functional and conventional errors in writing. Tests of significant differences were computed. The most marked statistically significant differences were between those who planned to go to college and those who did not. With few exceptions, there were no such differences between farm and nonfarm and male and female. It was on the basis of decision with respect to going to college that differences occurred, and with respect to all the tests mentioned.

Rural youth, in comparison with urban youth, find themselves in a school and community environment with considerably less potential for arousing and maintaining high level educational and occupational aspirations. The rural students attend smaller high schools and schools that send smaller proportions of their graduating class to college than do urban students. They are considerably less likely than urban students to have as their best friend other boys and girls who plan on college. They are somewhat less likely than urban students to have discussed their post-high school

plans with their teachers and counselors, but are equally likely to have been encouraged by them to attend college. They are less likely than urban students to live within commuting distance of a college and are less likely to have lived in an urbanized county where a wide variety of educational and occupational opportunities are visible to them.

First, it goes almost without saying that everything should be done to improve the quality of rural high schools. This includes not only the physical plant, the curriculum, the teachers, and the quality of the supervision, but also the intellectual climate of the school.

Second, it would appear that there is great need for in-school programs, stressing educational and occupational guidance. Rural students, especially farm students, probably know much less about educational and occupational opportunities than do urban youths, yet very few rural high schools have guidance programs. While counseling cannot be expected to work miracles, it should be especially useful in making students aware of the range of jobs appropriate to their talents and in informing them of the educational requirements of these positions. In particular, guidance programsare needed for farm youth to help them become more aware of the objective requirements of the non-farm world of work.

Third, any program of educational and vocational counseling should involve not only the youth but his parents as well. This is particularly true for rural parents since they often exert a negative influence on their children's educational and occupational aspirations.

Fourth, there is special need in rural school systems for programs which would attempt to make an early identification of those students who should be given encouragement to develop their unusual talents. If, as seems to be true, many rural schools do not provide a stimulating environment to the more talented scholars, possibly such students could be sent to schools where more challenging programs are available. Such a program might be difficult to implement but might provide an effective way of reducing rural talent wastage.

Fifth, since many rural youth cannot afford to attend college and vocational training institutions in distant places, everything possible should be done to increase the availability of such educational facilities.

Other important sources of data are the census of population and of agriculture. By consulting these you will be able to answer questions of a quantitative and qualitative nature concerning rural youth. What is their number? What is their educational level? In what counties are they most heavily concentrated? How many live on farms?

Finally, state and county government may provide additional useful data, such as that on school enrollments, data which will permit the calculation of dropout rates, data on the enrollment in various types of courses offered in the school system.

Chapter VII

"Sources of Data and Other Information"
Dr. Michael Nunnery, Professor of Education, Department of Administration
University of Florida, Gainesville, Florida

The stated purpose of this Institute is to assist vocational educators to plan and develop effective annual and long range vocational education programs for rural areas. Further, it has been stated that two of the specific objectives of the Institute relate to: (a) the role of data and other information in program planning, and (b) sources of data. Considering this purpose and the several objectives identified, it is obvious that the planners of the Institute were operating on a very simple but important assumption--effective planning for vocational programs cannot occur without giving careful attention to data. Based on discussion with the Institute planners and a review of the Institute program, I have identified two other assumptions which are basic to my approach to the topic assigned. First, when the term "rural" is used, reference is not being restricted to the farmlands and the encapsulated pastoral villages of our youth, rather, the term is being applied broadly to include most of those areas of the nation outside of the so called "major metropolitan areas." Second, that data relative to the nature of the community served are critical to the program planning. Therefore, the aim of this presentation is to identify the kinds of community-related data needed for program planning, illustrate why these kinds of data are needed in program planning, and indicate sources from which such data may be obtained. I trust this does not constitute a prostitution of the title assigned for this presentation.

The term "community" will be used through the course of these remarks. A review of the writings of sociologists on the topic will reveal some disagreement in defining the term. In an effort to avoid a problem of semantics, for the purpose of this presentation community will be defined as the geographic area served by the vocational program under consideration. I am aware that the definition is not acceptable to most social scientists; but in spite of its simplicity and inadequacy, it will serve for my purposes. In some instances where programs are being planned, community may be defined as a local county school district, or an independent school district, or a common school district, or an attendance zone for a given vocational school (meaning a part of a local school district or including several local school districts), or in the case of state level program planning the state may be the community. Further, community will be conceived as consisting of five basic dimensions--demographic, industrial or economic, land-use, community services, and decision-making or power. These dimensions are dynamic--not static; they are interdependent--a change in one will probably effect a change in the others; and when viewed collectively, one may draw some inferences regarding the mores and values of the people residing in the community and some inferences regarding the "climate" within which vocational program planning and development must occur.

There is nothing sacred about viewing a community in terms of the five dimensions identified--other taxonomies will probably serve equally well. However, it is asserted that the configuration of these several dimensions in a given community will determine to a large degree what the community may demand, what it may need, what it may support, and what it can support in the way of vocational programs. To illustrate, assume vocational program planning is occurring for a given county and the data gathered reveals: (1) a decline in the size of the total population; (2) a bimodal age distribution--with loadings at the younger and older ends of the continuum; (3) a relatively small percentage of the population in the work force; (4) a relatively heavy loading in the unskilled and semi-skilled occupational categories; (5) a relatively low per family income; (6) the mean educational attainment of adults over 25 less than the ninth grade; (7) relatively heavy loading of employment in manufacturing, mining, and agricultural industries with the forecast of little change in these loadings; (8) much of the existing land being used for low-density residential dwellings, strip mining, and farming with the forecast of little change in existing land use patterns; and (9) a power structure that is tightly controlled and committed to the maintenance of the status quo. Given such a situation, obviously a description of a "dying" community, it is suggested that: (1) the people will demand very little in the way of vocational programs, except maybe for a few low cost, low skill programs and programs to help their children get a better job once they leave for the city; (2) there will be little support for high cost, innovative, or high skill programs--the people can't conceive of such and the power structure sees no need for it; and (3) in reality the community can't afford much. (There is no significant tax base--there is no trade center and low density residential dwellings, land that has been stripped, and open range lands produce very little in the way of taxes.) The data about such a community also suggest that in any vocational planning and development activity there is a need for outside inputs in the form of human brain power and dollars from state and federal levels. That is, such a community simply lacks the human and physical resources to "go it" alone. Thus, to me, your reason for being, that is, assisting in the planning, development, and implementation of vocational programs is fully justified.

Hopefully, having defined community in an understandable manner and having made something of a case for the relationship between data about the community and vocational program planning and development activities, let us examine each of the five dimensions previously mentioned in terms of the specific kinds of data that would be useful in program planning and development. The first dimension mentioned was the demographic dimension. Data in regard to the demographic dimension should probably include distributions and trends related to: size of the population, age of the population, male-female ratio, income of the population, sources of income, education of the population, percentage of the population in the work force, percentage of the population gainfully employed, occupations engaged in by the population (using D.O.T. or U. S. census classifications), population mobility, number of births, birth rates, and places of employment of the population.

The second dimension identified was the industrial or economic dimension. Within this category it is suggested that data should be gathered in regard to the distribution of industries by type (manufacturing, trade, agriculture, construction, business services, personal services, etc.), trends in regard to industrial growth (new plants, service institutions, etc., or the diminshing of such), job availability, and forecasts of job availability by type (skilled jobs in manufacturing, unskilled jobs in agriculture, service jobs in trade industries, etc.).

The third dimension that should be examined is what was called the land-use dimension. Data in regard to land-use should probably include determination of: the percentage of land by type of use (residential, commercial, industrial, open, public facilities, etc); zoning regulations (if any); land-use forecast (rate and potential location of residential, commercial, and industrial construction); major changes in land-use (due to freeways, urban renewal, etc.); and residential dwelling characteristics (age, size, condition, availability, and utilization).

The fourth dimension identified was community services. These data should probably include identification of all "people serving" institutions and agencies. These would include public utility services, (water, electricity, sewage, gas, etc.), schools, recreational bureaus and agencies, health agencies, welfare agencies, farm agencies, rehabilitation agencies, churches, and the like.

Data should be gathered regarding the present and anticipated activities of each of these "people serving agencies," the nature of the clientele to be served by each, and the number to be served by each. My experience in gathering and using community services data as a basis for program planning has been in situations where the concern was for total program planning. As I have thought about vocational program planning and development specifically, I am not as confident about the importance of these data as the basis for planning vocational programs. However, it does seem logical that: (1) the future activities of the utilities will affect residential development and thus the location and size of the population to be served by the vocational programs; (2) that there should be an effort to avoid duplication of vocational programs by the several schools serving the same community; and (3) that the vocational programs should be designed to supplement the activities and efforts of such groups as the employment and rehabilitation agencies.

The last dimension identified was labeled the power dimension. In spite of our teachings in ninth grade civics about democracy, it is proposed that the power to influence decision-making within a community is not equally distributed among the population. That is, it is asserted that there exists within each community some people and groups with more power than others. It is suggested that in program planning it is necessary to gather data that answer three simple but important questions: (1) Who are the men of power in the community? (2) What is the nature of the power structure? (3) What are the values and mores of the power

figures? In recent years the scholars have learned a great deal about the power dimension in communities. Even though they would be the first to admit that their data are far from complete, the findings from their studies suggest that the men of power can be determined by the so-called reputational technique, (asking people who are the important people in regard to decision-making in a community,) or by the decision analysis technique (taking selected crucial community issues and examining who was involved in the resolution of these issues) or by a combination of these methods. Their investigations further suggest that the configurations of the power structure in a community may range from monopolistic (a very small group of people controlling all of the decision-making machinery in a community) to quite pluralistic. (Power is fragmented in small segments and decision-making processes are controlled by many individuals in a community.) Lastly, their findings suggest that the values and mores of power figures particularly in communities where the power structure is monopolistic will be a decisive influence in any kind of change that occurs in the community in question. In summary, what is being suggested is that knowledge about who "runs the show," what they believe, and how they operate will be necessary in developing program planning strategies.

Assuming that there is a need for data such as the foregoing as a basis for vocational program planning and development, the key question at this point is where and how can such data be secured. I'll divide my answer to this question into two major parts--standard national sources and local sources. I am aware that you are "tuned" to thinking in terms of federal, state, and local and I hope my standard national-local typology is not confusing. By standard national sources I'm referring primarily to those widely distributed documents developed by the federal and state governments. By local sources I'm referring to those agencies and their reports that exist with a given locality even though the agencies may be "state" in sponsorship. Thus, attention is given to "state" in both the standard national and local sources.

Relative to standard national sources, I would refer you to the document distributed by the conference planners. If you will review this document, you will note it contains a listing of a variety of publications along with other information about these publications from which much of the data that have been referred to can be obtained.

In summary, the use of national standard sources is essential. However, it should be clearly recognized that their recency is often a problem and second, it is extremely difficult to get these data broken down for the specific geographic area under consideration. Therefore, their primary usefulness is as a frame of reference.

Let us turn at this point to what was labeled local sources of data. Following is a listing of local sources that may be used along with some illustrations of the kinds of data that might be obtained from each source. Obviously, not all of these sources will be available or needed in a given community.

State employment agencies (including local offices) -
Occupational data, employers and number of employees, employer demands, size of work force, unemployment rates, etc.

State and local industrial development groups -
Distribution of industries by type, industrial growth forecast, population changes that will result from changes in industrial distributions, etc.

Local housing authority -
Forecasts in regard to land use for residential housing (particularly public housing projects).

State and local planning groups -
Land-use data, land-use forecasts, housing characteristics, demographic data, etc.

Municipal zoning groups -
Regulations regarding land use and maps showing present and projected land-use patterns.

Agricultural extension service personnel -
Wide variety of information regarding farm lands, farm crop production, some demographic data.

Local realtors -
Housing forecasts, land availability, etc.

Chamber of commerce -
Demographic data, economic base data, community service data, etc.

Local utilities (electricity, telephone, water, etc.)
Population growth trends and land-use forecasts.

Local service agencies
Data regarding clientele to be served, nature of service future plans, etc.

Elected public officials
Information about the decision-makers and a variety of data consistent with the office held (example--tax assessor will have land evaluation data.)

Personnel or industrial relations department of area industries
Personnel needs, present and future, of the industries served.

Bureau of business and economic research of public universities
A wide variety of economic and demographic data about each county and municipality within the state served.

Householder polls
Demographic data, opinion data, and housing data.

Officers of local civic clubs (League of Women Voters, Taxpayers Association, etc.)

Information regarding their position on local issues which provide an indication of potential basis of support for any future program development and planning activities.

Local general advisory committees for vocational education (general not craft)

Supplement data available relative to local occupational trends, present and future job opportunities, etc.; provide data about decision makers; advise regarding climate of opinion within community and advise regarding "who to see" in the local agencies and groups previously mentioned.

To briefly summarize, it has been suggested that (1) data about the community are essential in vocational program and development activities, (2) generally data will be needed about the demographic, economic, land-use, community service, and power dimensions of the community under consideration, (3) such data are available from both standard national sources and local sources, (4) since it is difficult to secure data from national sources which apply to a specific geographic area and often such data are outdated, standard national data sources are probably most useful as a frame of reference, (5) local data have the advantage of recency and applicability, and (6) data collection, particularly from local sources, is a time-consuming and costly endeavor, thus priorities must be established.

Chapter VIII

"Education Planning and an Information System"
Elaine Hershey, Director of Pinellas County Information Systems Project
St. Petersburg, Florida

Planning vision can provide the vital margin of success in solving existing problems as well as to assist in avoiding crises before they occur. Uncharted direction and non-planning errors result in wasted time, money, and human resources.

Vocational, Technical and Adult Education's responsibility to educate for tomorrow's world requires "future-orientation." "Tomorrow is Here" in our field.

The life-blood of effective planning is accurate, current, relevant information. For successful advanced planning, the right people must see the right data at the right time in order to take action.

The flood of data is pouring from all sources. We can't turn off the flow so we had better learn to control it and we are already running late. Paper proliferation and profusion evolve, they are not designed.

Over-collecting and under-analyzing are common pitfalls in information "manufacturing" and knowledge "delivery" for decision-making and planning. The raw materials of knowledge are bits and pieces of data that must be fitted together and processed.

A deck of punched IBM cards contains a mountain of information and no knowledge per se until it is analyzed.

Compiling tabulations, cross tabulations, charts and tables, and other statistical manipulations are processing stages of this raw material.

The "Final Processing" is the drawing of conclusions upon which to make wise decisions, arrive at practical solutions and make intelligent forecasts.

A common error is leaving data half digested or "under-analyzed."

Over-collecting results from lack of well-defined goals and clear definition of objectives. Data or information is a tool in decision making and problem solving--as a means to an end--not as an end in itself. In other words, data are of no value unless used.

In education, as in medicine, prevention is better than a cure. An information system provides a constant, clear record of status changes and future needs to give the administration a means to inform, control, plan, schedule and evaluate.

Our county VTAE planning unit--the Survey Office, is organized to provide a focal area for gathering of information to coordinate student and community needs in program planning and evaluation. (Transparency 1).

Problems encountered in limitations in the capacity to accumulate, process and disseminate information at the rate necessary for effective use, lead us to search for solutions.

The uncharted nature of computerized educational information systems necessitated "think tank" techniques and "brain-storming" sessions at all levels. We approached the development of this system as students in an intensive seminar session--complete with programmed texts--to learn the basic physical makeup of input and output hardware devices and internal functions.

We employed the approach of the field itself--"Systems Analysis" in developing the procedural framework. (Transparency 2).

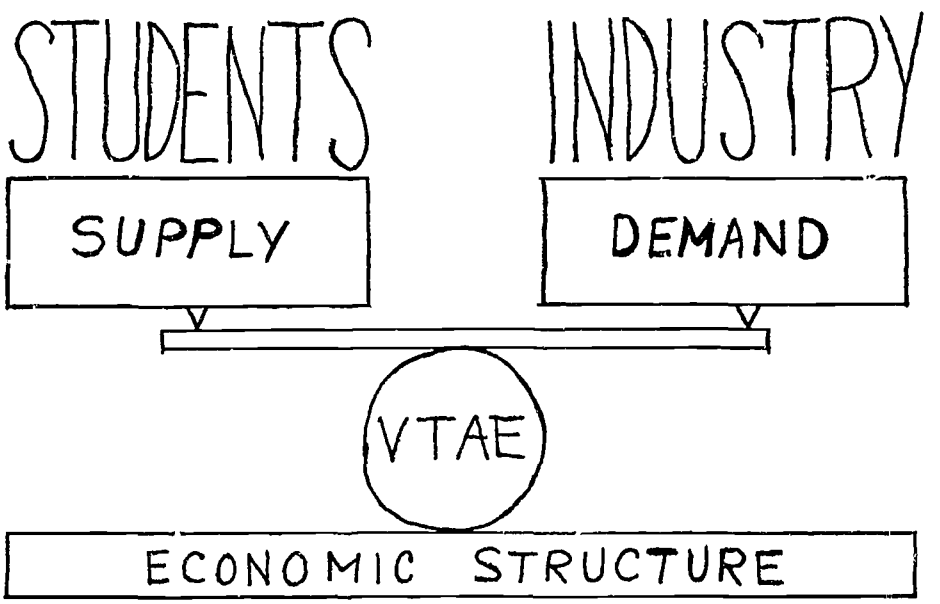
The vast range of related areas involved with the many stages of planning and development of this total information system, with computerized capacities, synthesized our thinking as it related to the systems analysis approach. Of course, the definitions and concepts of "Systems Analysis" differ as widely as the areas of application. This procedure does not provide a decision. It helps in understanding the decisions to be made by defining objectives.

The first planning step in this approach, is the identification of the problem, followed by the definition of the desired outcome or objectives and the alternate objectives. I'm sure you have all had contact with this frame of reference, particularly in the popular P.P.B.S. decision-making procedure. It emphasizes explicitness, and forces us to face issues previously ignored. It calls attention to the uncomfortable truth that most decisions are made with very little basis-in-fact--often more by accident than design. It is not always a popular approach because often-times it disrupts traditional routines developed from inertia.

Our adaptation of the systems analysis approach to all phases of vocational-technical education planning has helped to place the many areas of consideration in proper perspective. The first prerequisite, in the organization of planning, is the commitment to the need for accurate, current, objective facts.

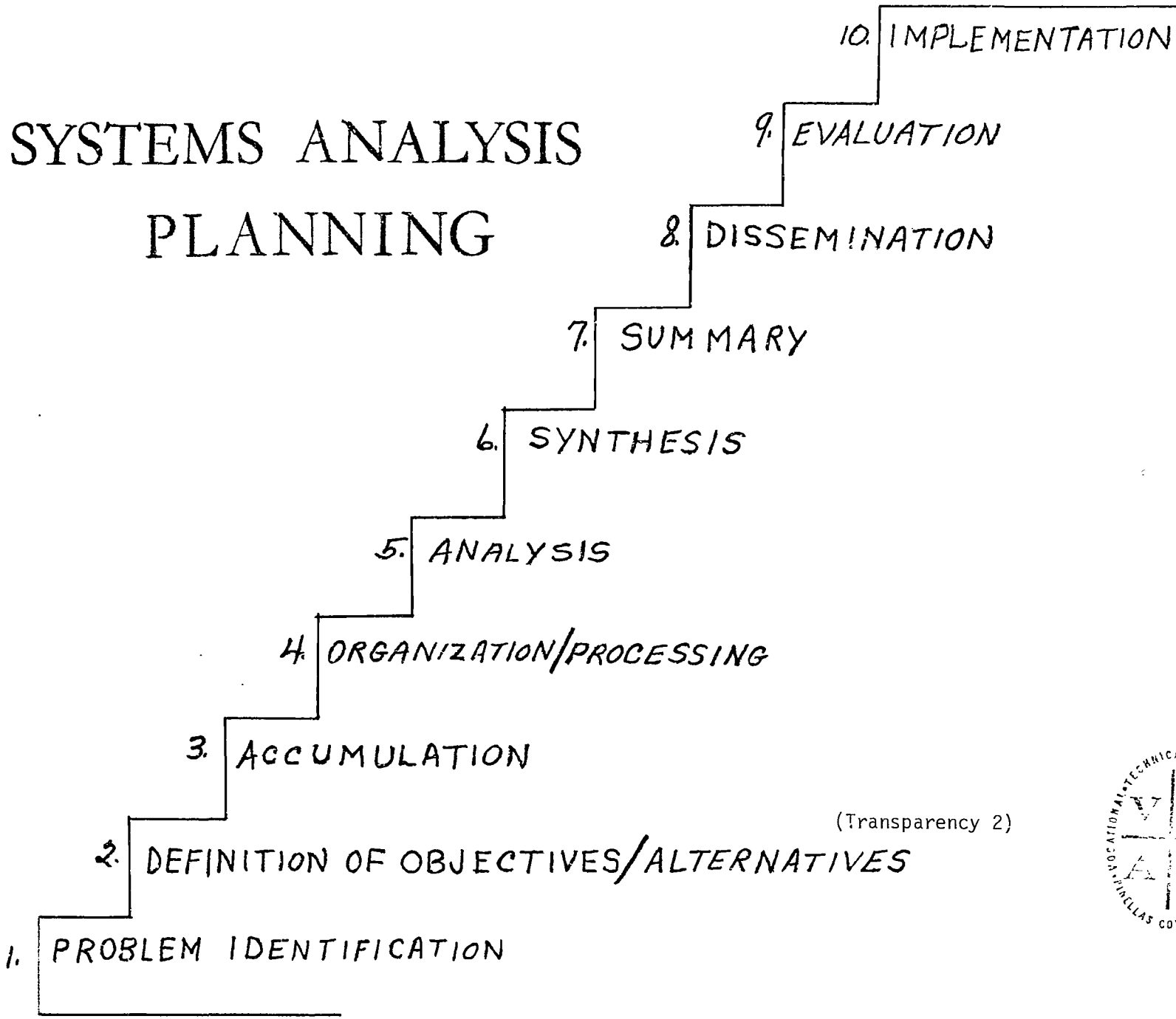
A further breakdown of the specific program planning elements is depicted in this slide as it relates to the determination of program operations. The variety of elements of population and business-industry developments requires coordinated planning with local area planning groups as well as state agencies (Transparency 3).

A further refinement to specific curriculum planning is this slide depicting the areas of job performance requirements and the determination of specific job components. (Transparency 4).



(Transparency 1)

SYSTEMS ANALYSIS PLANNING



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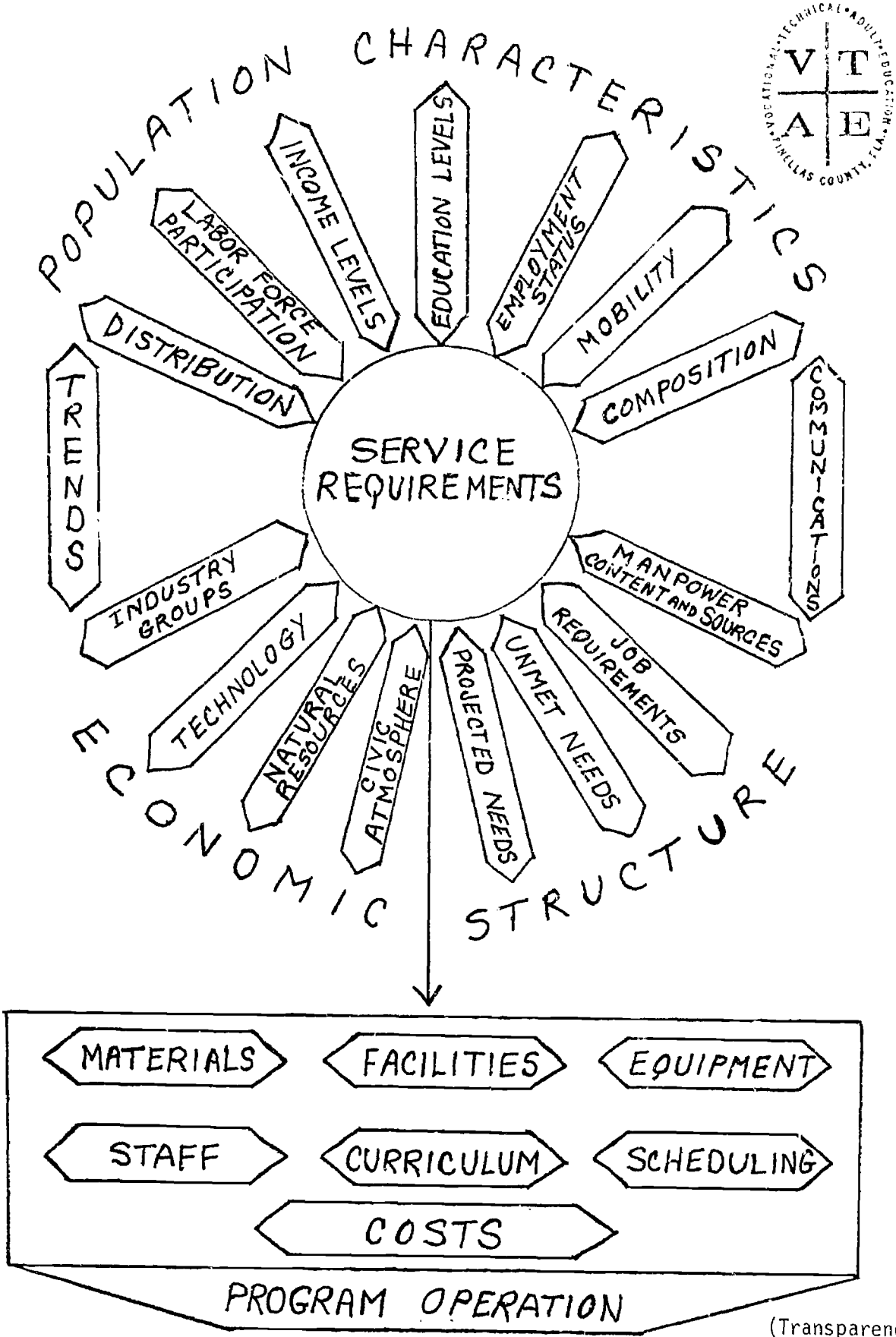
PROGRAM PLANNING ELEMENTS



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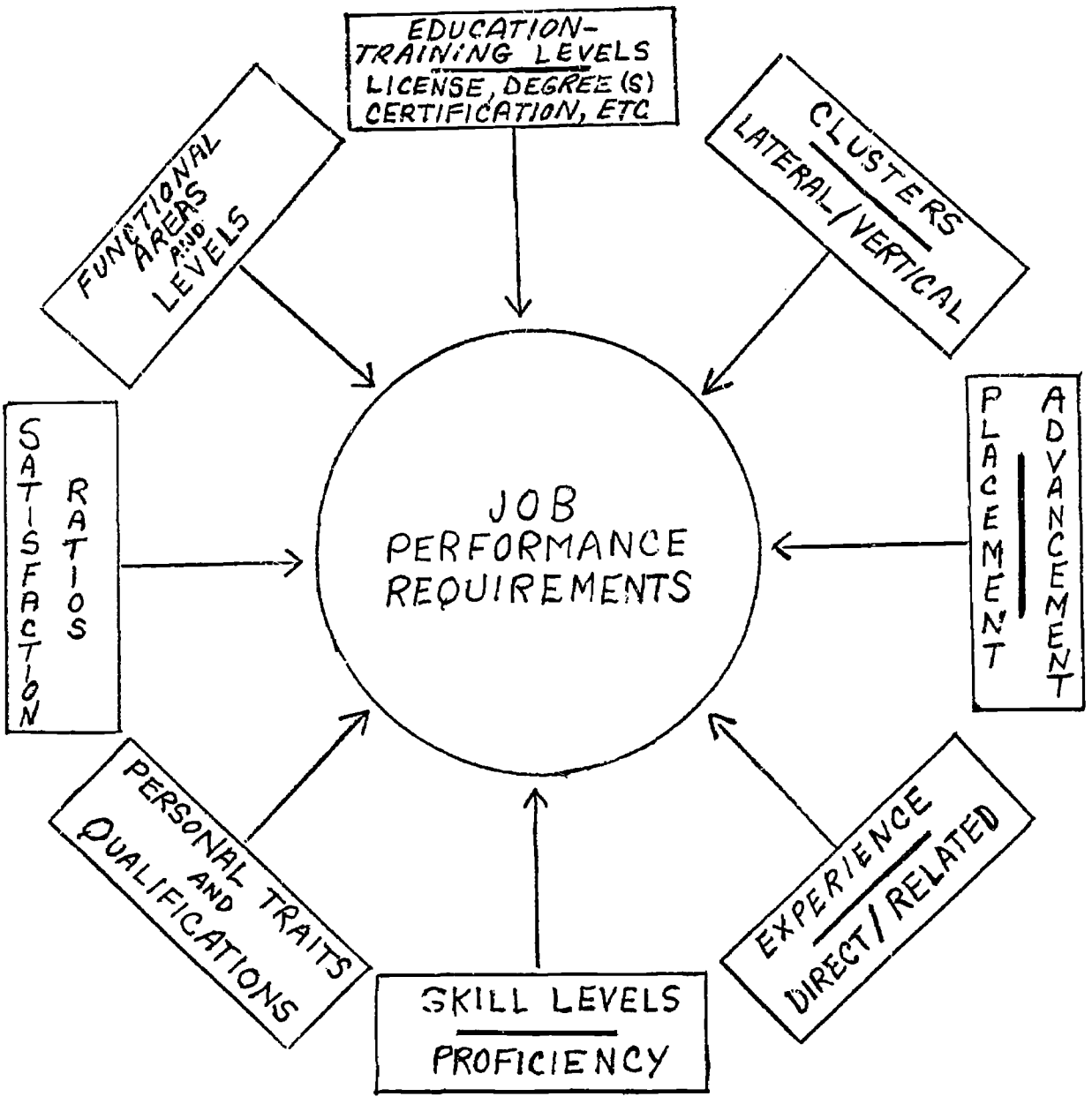

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Pinellas County Data Relevance

To identify our perspective, a few facts about Pinellas County.

Our public school system serves a county population of over 500,000. The approximate forty mile length of the 264 square mile peninsula borders on the Gulf of Mexico. Thus accounting for the county's original basic industries--tourism and the attraction of retirees--and the fact that almost 50% of the employment in 1966 was in trade and services. It is estimated that spending by tourists supports 1/3 of the jobs in the retail and service fields.

Our county is one of the three major urban growth areas in the nation and has consistently grown at population rates surpassing that of the area, the state and the nation, although it is the fourth smallest in the state in land area.

In addition, the changing characteristics of new industries and new occupations reflect the broadening economic base and demand of new expanding educational services.

This year our K-12 enrollment is close to 80,000 with 20,000 in 20 junior high schools and 18,000 in 11 senior high schools plus about 1500 full-time and 6000 part-time adult students in 4 VTAE centers, also, over 20,000 adults are served by VTAE programs in more than 70 other locations.

The multiplicity of pressures on VTAE include:

1. Rising levels of employment opportunities; a tight labor market, plus high unemployment rates among teenagers and various disadvantaged groups

2. Increased business-industry diversification, specialization, expansion and educational interest

3. General population and total school enrollment expansion

4. Increased interest and participation in vocational, technical, and adult education by all age groups

5. Accelerating high school and college drop-out rates

6. Population concentrations and shifts

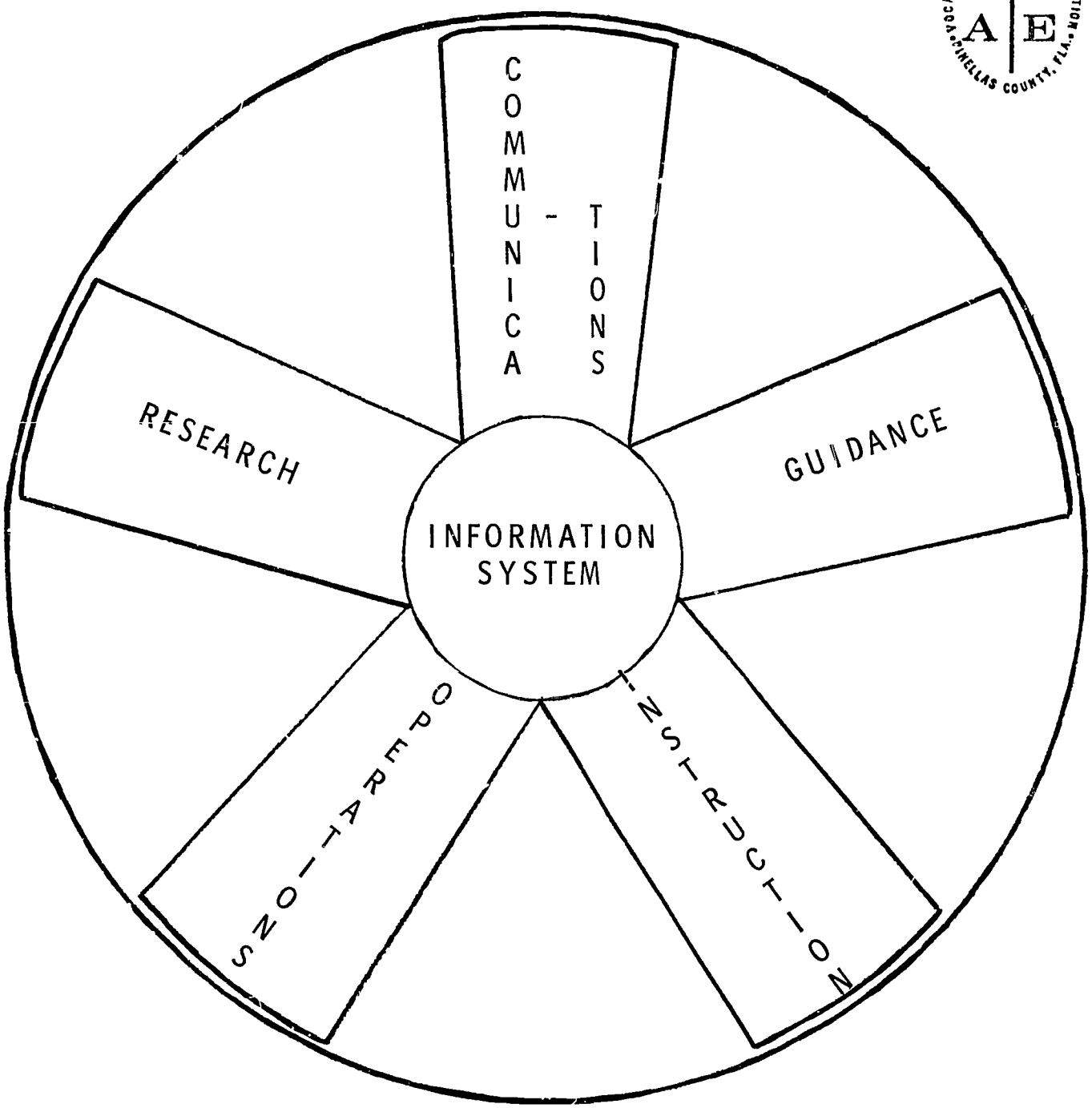
7. Transportation problems

In order to review some of the types of data implemented by this pilot information system, we have some transparencies to depict various areas. (Other Transparencies).

Conclusion

The information center is a clearing house for planning, decision

INTERRELATIONSHIPS IN EDUCATIONAL ADMINISTRATIVE MANAGEMENT



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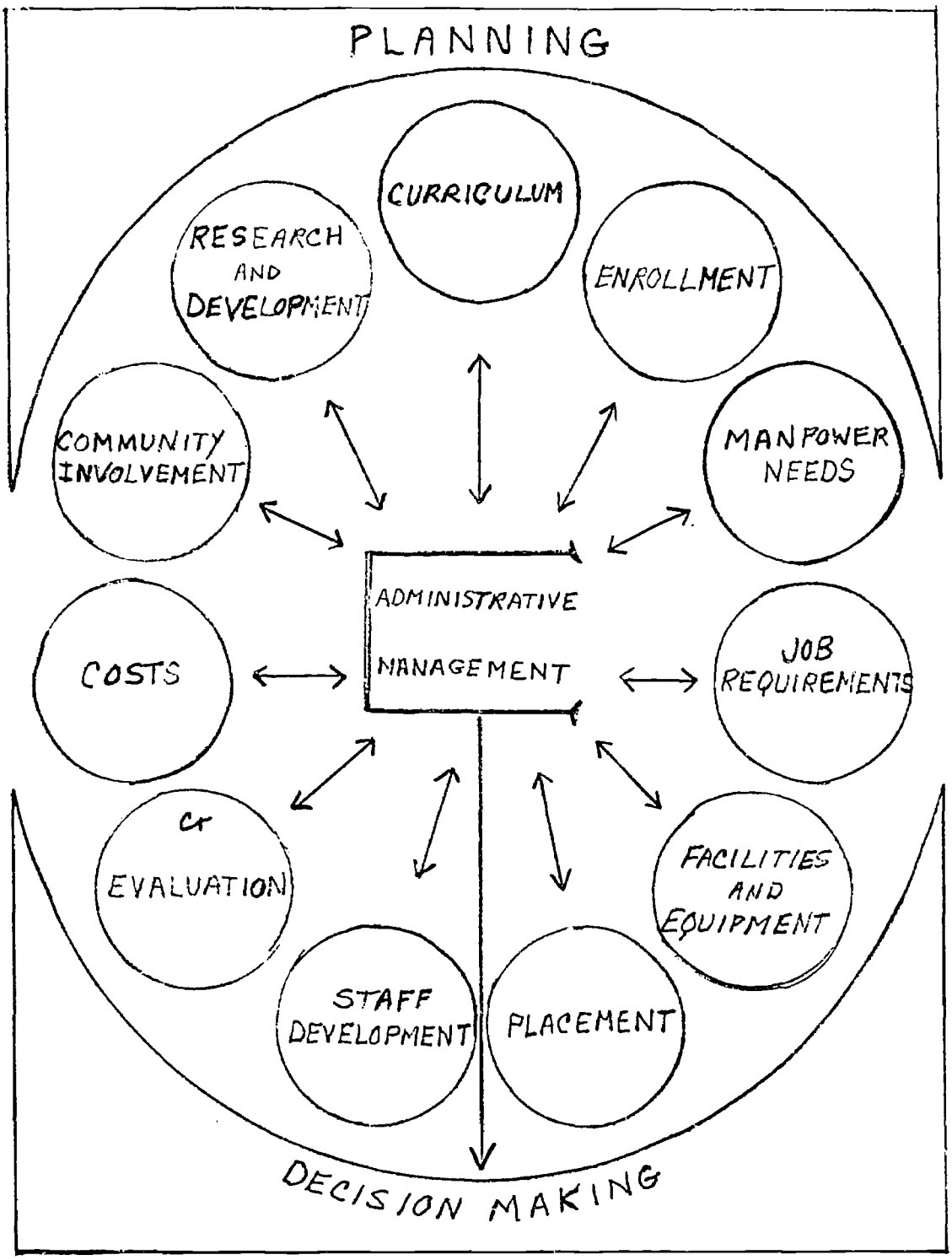
VTAE PLANNING FACTORS



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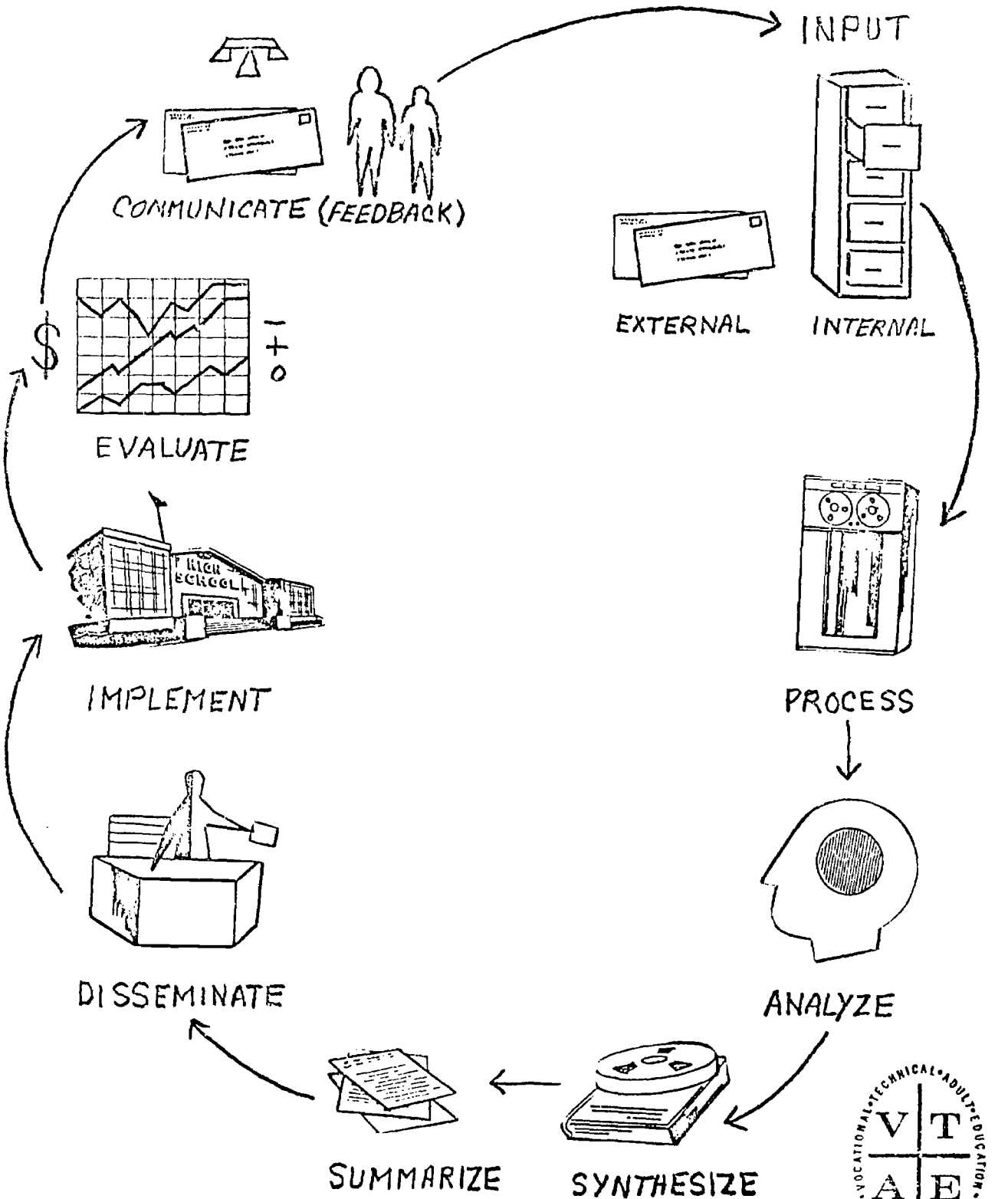
PLANNING CYCLE



(Transparency 7)

making, control and management development. Making decisions, formulating plans, and exerting controls are among the most important educational functions. The information center can speed up creativity through cross-fertifilization of the seemingly unrelated areas. The potential of development of information processing in these previously unexplored educational areas can encompass the entire vocational, technical, and adult education field.

As we progress in the development of procedures and format, the base of this pioneering operation will be expanded to a multi-county system. In turn, the ultimate goal is a complete state network.

The commonality of vocational education planning problems in all areas will contribute to the total system program development and hopefully avoid some of the current problems of "instant planning."

Chapter IX

"Instrument Development, Data Collection, Treatment, Storage and Retrieval"
Dr. Raymond Parker, Director of Data Processing, Information Systems Project of Pinellas County, Clearwater, Florida

The pressing demand for adequate, accurate, and timely educational information is one of the most crucial needs in the administrative management and development of America's educational program.

Educators, Boards of Education, and some government decision-makers want to improve education, but they do not always have the facts, trends, and projections with which to make proper management decisions.

Much valuable information is being collected, recorded, and reported now at all levels of education: But it is often buried in files and not made available in useful form to the right people at the right time.

Management needs a tool which will provide accurate, current information on which to base answers to important questions. An educational information system that enables administrators to cope with contemporary educational problems thus becomes an invaluable management tool.

In the development of applications to be processed in a computer system, one of the first tasks is to gather facts, forms, reports, documents and related information. In so doing, this question has often come to my mind: I wonder who the person is, what is he like, what little dark corner or room do they keep him locked up with nothing more to do than to dream up different forms and reports for people to complete for the reporting of the same items of data in as many different formats as possible. Has this question occurred to you? Certainly this is not the case but sometimes we wonder.

In the development of instruments for the collection of data, there are several questions that must be considered. Some of these questions are:

1. What items of data are to be collected
2. What is the source of the data
3. What is the volume of the data
4. What is the format of the data
5. What resources are available

6. Maintenance of the data

7 Security of the data

5. .ilization of the data

I am sure there are other questions that could be added to this list.

What items of data are to be collected

1. This question can be answered by gathering samples of documents and reports that are in use. From these we will compile a list of each item of data that appears in the samples.

2. Add to this list the items of data that are not being collected, but would be helpful or useful to have.

3. Add to this list the items that you think will be needed in the future for projected reports or for long-range planning.

4. Contact everyone concerned and give them an opportunity to add items that might have been overlooked.

5. Once the list has been completed, the next step should be the elimination of duplicate items. This will cut the list considerably.

6. The next step should be the justification of each item of data. Is it really needed? How is it going to be used?

7. When a person is requested to justify the collection of an item of data he might have some second thoughts. Collection of an item of data simply because it has always been collected is not justification. Another item that should be considered along with the justification might be the economics involved.

8. The long list that was compiled in the beginning will become shorter and more realistic.

9. Terminology will present some problems. Once the list of data items has been completed, and justified, the items should be defined, so that each person involved will know exactly what each item is.

An Example: What do we mean by student number? Is it a number assigned to each student, is it his social security number or some other number? How is it entered? Is it to be coded?

What is the source of the data

1. Where will this item of data come from? Many people in different departments might utilize the same data items but who is going to supply it.

2. Data items should be gathered from the initial source or organization of the data.

3. When data items are supplied from several sources, it will require that each source use identifying item of data.

4. Is there an alternate source that can be used?

What is the volume of the data to be collected

1. The number of items and the source of the items must be determined prior to the development of an instrument.

2. The length of an instrument will have a definite relation on the accuracy of the data.

3. Not only the volume of the instrument but the volume of records to be collected and maintained will have a bearing on the instrument used.

What is the format of the data

1. The format and source of the data will sometimes predict the arrangement of the instrument.

2. It should allow for ease in the recording of the items and all like data items should be grouped together.

Example: If we are recording data on instructors, such as certificate number, rank, status, etc., they should be grouped when possible because of the source.

3. Coding of items of data should be avoided.

Example: An item of data where an instructor must take time and go through a list to find the correct code to be recorded for each student in a class is time consuming.

What resources are available

1. People

2. Machines: Manual forms that will be keypunched
   Mark sense form for machine processing
   Optical scanners
   Paper tape, magnetit tape
   Communication devices

3. Capabilities and capacity of the machines for recording, storage, processing, retrieval, and reporting.

Maintenance of the data

1. To collect, record, store and report data is not complete. Means must be provided for the maintenance of the data.

2. If the data is not current, accurate, and up-dated then it is obsolete.

Security of the data

Security must be maintained at all time. Not because the data has a top secret or classified rating, or because the work involved in gathering the data again if it should be destroyed, but because of the very nature of it.

Today some computers may know more about an individual than he knows about himself. People are becoming cautious or skeptical about supplying information. Many lawsuits have been filed for the invasion of privacy.

Utilization

1. All items of data should be analyzed periodically to determine if it is being used.

2. After some data has been recorded once it may not be necessary to have that item of data recorded again.

Example: One item of data that was submitted to us by each instructor for each course is the state department's bulletin 70-H18 number.

From the data that was submitted for the first semester it was possible to establish a master file containing data for each course which includes the bulletin 70-H18 number. By applying all courses aginst this file we can select the number.

SYSTEM STUDY AND DESIGN

1. Complete review of current data problem areas

2. Analyze--present operating procedures: facts, samples of documents, samples of reports

3. Determine what the output requirements are, number and kinds of reports requested, due dates for reports

4. What input data is required, elimination of duplication of data items, and duplicate requests for items of data.

5. Determine data flow in and out

6. Define users and establish priorities

7. Establish current and long-range goals

8. System designed to do the job, programs required

9. Data samples test runs

10. Review, evaluate, revise, open end

INVOLVEMENT

People

1. Many people will be affected in varying degrees with an information system.

2. The 10% will always resist change.

3. Must be made to feel that they have a part in.

4. Coordinators appointed for different departments deal with only one instead of everyone.

5. Publications, guidelines and workshops.

6. In-service training school.

7. Channels of communication up and down for new applications, changes, etc.

IMPLEMENTATION

1. Do not try to implement more than can be handled

2. Keep back-up

3. Dual processing might be necessary for skepticals--when I am supplying you with a report that is to your satisfaction and you feel that the old system could be abandoned it is up to you to do so - not me.

4. Controls must be a part of implementation

5. Documentation of procedures and programs

EVALUATION

1. Accuracy

2. Production

3. Cost

Problems

1. Modular scheduling, make-up classes

2. Wheel, rotation, 3 week, comprehensive high

3. Communications

   a. Student changes periods

   b. Instructor switches

   c. Rotating classes. Class reported as meeting from 9-12 and student may be in for 1 hour, 2 hours, or 3 hours. Attend other classes

   d. One instructor teaching more than one class at the same time.

   Example: Horticulture I, II, and III

   e. Team teaching

4. People

5. Definition

Chapter X

"Planning and Decision-Making"
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Literature in the field of education abounds with examinations of the decision-making process and with suggestions for steps to be taken between the "felt need" and the implementation of the preferred solution.

Griffiths, for example, proposes that these steps are:

1. Recognize, define, and limit the problem
2. Analyze and evaluate the problem
3. Establish criteria or standards
4. Collect data
5. Formulate and select the preferred solution or solutions (alternatives)
6. Put into effect the preferred solution[1]

A linear procedure such as this leaves much to be desired, and there must be more to it. For example, when one considers how the problem can be defined and limited in step 1 without the analysis and evaluation in step 2, and how step 2 is possible before collection of the data in step 4,

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[1]Daniel E. Griffiths, Administrative Theory, New York: Appleton-Century-Croft, 1959, p. 95.

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one begins to feel that Griffiths left unsaid much more than he said. But the inference is that decision-making can be a logical and perhaps even scientific process.

Looking further into the literature, we discover a significant relationship between the process of decision-making as described by Griffiths (and others) and the logical and scientific research process. For example, Barnes traces the research process in verbal terms from "researchable problem - hypothesis - verbal description - logical estimates - logical inference - tentative estimate - rational evaluation".[2]

We see here essentially the same linear sequence proposed by Griffiths-

1. Need for action (recognition that a problem exists)
2. Definition of the problem
3. Examination of data and development of alternatives
4. Selection of the desired course

This type of linear (or sequential) description of decision-making sometimes includes, specifically or by strong inference, "Planning" - DeYoung, for example, in discussing school revenues, called for these steps:

1. Plan the educational program
2. Determine expenditures (for the program)
3. Determine needed revenues[3]

The relationship between the financing of education and the decision-making of the administrator is perhaps the key to the present emphasis on planning; and, since the budget is a financial expression of plans, the

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[2]Fred P. Barnes, Research for the Practioner in Education. Department of Elementary School Principals, NEA, 1964, p. 22.

[3]Chris A. DeYoung, Budgeting in Public Schools. John S. Swift & Co., 1946.

budgetary process has been the focus for much of the recent interest in the development of means to enhance rational decision-making.

Sequential planning processes relating to budgetary decisions have been described in such varieties that it is becoming necessary to resort to acronyms to identify them. To select one -- GOPAAR represents a process for effective budgeting which, while not employing the word itself, obviously calls for planning:

Goals

Organization

Priorities

Adoption

Administration

Review

Jordan, in discussing the word "Review" in GOPAAR, states "---Encompassed within review is the evaluation and examination process which may lead to new goals and alternatives."[4] (emphasis added) Since the Goals and Priorities represent the needs and the alternatives for decision, we see that the linear, or straight-line, procedure is actually curvilinear -- the end leading back to the beginning. In other words, after the review and development of new goals and alternatives, the process must begin again - and again - and again.

Now how can "Planning" be related to decision-making?

Newman and Summer describe the first steps of setting a goal or objective as the diagnosis.[5] Obviously, the diagnosis requires analysis

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[4] K. Forbis Jordan, Schools Business Management. The Ronald Press Co., 1969, p. 111.

[5] William H. Newman and Charles E. Summer, The Process of Management, Prentice-Hall, Inc., 1964, p. 261.

of alternative courses of action, and here is the heart of the process. Here past experience, theory, logic, and statistical analysis are brought to bear; and it is here that models may be most useful. And it is precisely here -- in the analysis of alternatives -- that we see the necessity for taking into account the effects of our decisions on all related components of our system, and vice versa.

So we come to systems analysis. And again we find the literature bulging with information. Particularly pertinent here is a reference by Johns and Morphet[6] to the effect that in making policy the "systems analyst must consider the effect of a contemplated policy or action on the total system before making a decision". Novick[7] points out that systems analysis includes not only quantitative considerations, but must consider qualitative aspects as well.

But what is systems analysis? It emanates from the general systems theory and has been defined by Boulay in this manner:

"Systems analysis *** is at heart, nothing but one method of applying basic sound judgment to all aspects of a particular function. It is the scientific method: extended, codified and adapted uniquely to management. ***Systems is the scientific method applied to the complex science of governing, whether the governed is a business firm, an industry, a federal or state agency, or a school district."[8]

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[6]Roe L. Johns and Edgar L. Morphet, The Economics and Financing of Education. Prentice-Hall, 1969. p. 473.

[7]David Novick, Report of the First National Conference on PPBES in Education, "Program Budgeting, Its Origin, Present Status, and Future."

[8]Peter C. Boulay, "Systems Analysis, Tonic or Toxic?" Arizona Teacher, May, 1969.

William H. Harman suggests that the system analyst through the building of heuristic models which abstract from reality the crucial relationships in the problem being studied "---seeks to illuminate the choice among alternative strategies in the presence of uncertainty. The design of these strategies is an important part of the analysis."[9]

Probably the best statement of the advantage of the use of systems analysis over traditional decision-making procedures is given by E. S. Quade--"---it permits the judgement and intuition of experts in relevant fields to be combined systematically and effectively."[10]

Before attempting to describe planning and decision-making in terms of the systems analysis concept, it is desirable that we agree on definitions and relationships of terms we may use. At best, the use in the literature of many terms relating to systems analysis is confusing; at worst, contradictory. So, for our purposes here, let it be agreed that:

1. Systems analysis will refer to the examination of the total of the interrelationships and interactions between components or factors affecting or being affected by a decision. This phrase will be considered as both inclusive of and descriptive of separate but related procedures and processes.
2. Operations Analysis will refer to the method of systems analysis as applied to particular procedures and processes incident to

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[9]"Technology and Educational Policy Research", Chap. 11 in Cooperative Planning for the Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser, edr. Denver, Colorado: Designing Education for the Future, 1968.

[10]"Systems Analysis Techniques for Planning-Programming-Budgeting." Planning-Programming-Budgeting: A Systems Approach to Management, Fremont J. Lynden and Ernest G. Miller, eds. Chicago: Markham Publishing Co., 1967, p. 295.

the testing and/or implementation of alternatives. The term Operations Research is often used to refer to specific data collection procedures required for Operation Analysis -- and the two terms are sometimes used interchangeably.

3. Cost Analysis is the heart of the evaluation of the effectiveness of financial planning, and is a basic ingredient of Operations Analysis. The value and effectiveness of financial planning is directly related to the degree of detail which basic accounting (and other) records provide; hence,

4. Cost Accounting may be said to be the foundation for Cost Analysis, which is an essential part of Operations Analysis which, in turn, is the key to Systems Analysis -- noting that the principles of systems analysis apply in each concept.

As a model is developed to illustrate these relationships, two other terms need definition:

5. Cost-effectiveness refers to the efficiency of the use of resources at the level of operations -- whether or not a dollar assigned to a purpose is accomplishing that purpose. This generally involves short range criteria.

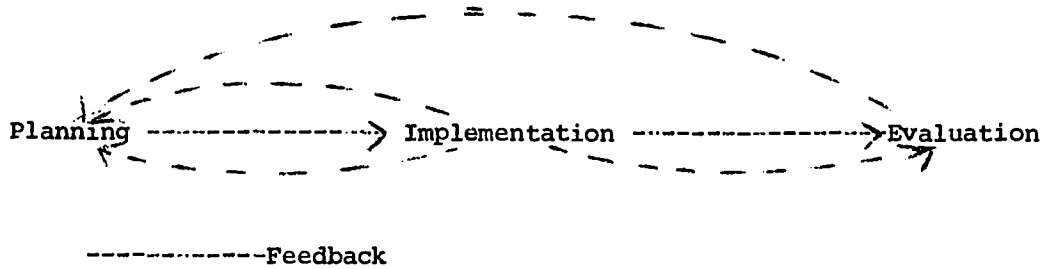
6. Cost-benefit refers to the relationship between the resources allocated for a purpose by society and the benefits to society to be expected as the goals expressing the purpose are reached. Cost-benefit is the consideration which keeps over-emphasis on cost control and dollar conscienceness from diverting an organization from its long-range goals.

Obviously, if we are going to consider cost-benefit as the relationship which will govern allocation of resources -- and we must, since resources are not unlimited -- we are going to have to be concerned with measuring outputs and with making rational and supportable decisions between alternative ways of achieving the desired results.

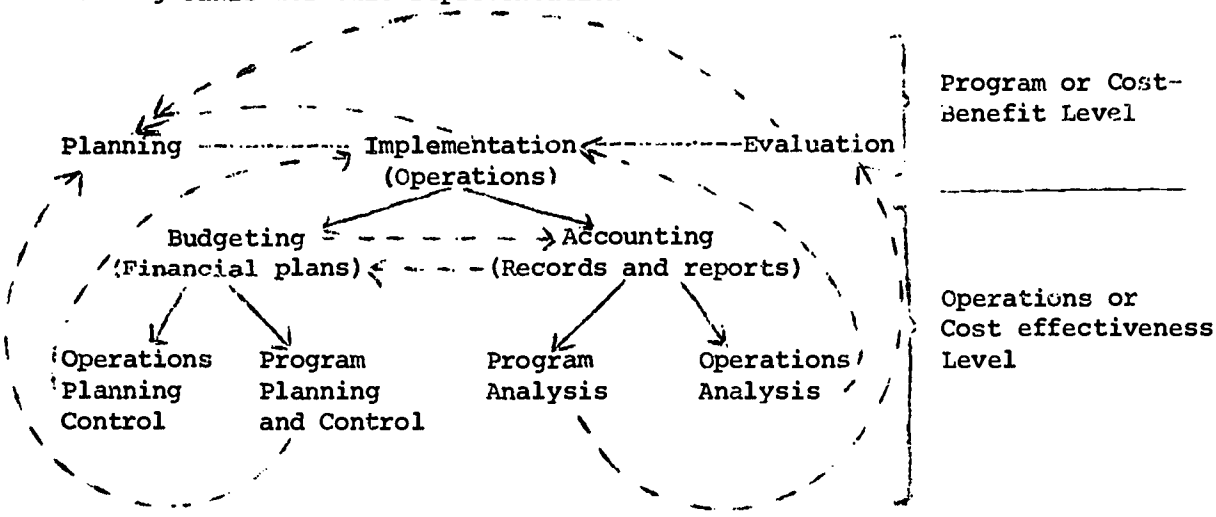
PPBS is said to be one method of enhancing the making of rational decisions. (RADS - Resource Allocation Decision System is another, and they are multiplying like flies.) Let's look at PPBS.

PPBS is not a word. It is an acronym for Planning Program-Budgeting System. The Association of School Business Officials suggests that this should more properly be called PPBES for Planning, Program-Budgeting, Evaluation System. The literature on this subject does not make clear whether the word "system" is used in the sense of "method" or in the sense of "systems approach"; so to avoid contributing further to an already confusing terminology, it is proposed here that we refer to this procedure as PIE--at least that is a word--which will stand for Planning, Implementation, and Evaluation and will serve as a bridge from the literature on decision-making to the concept of Program Budgeting, will enable us to relate "Planning" to "Decision'making", and will put them in proper perspective with development of alternatives and criteria.

Represented as a model, PIE shows this relationship:



But the relationships we are looking for are obscured here through over-simplification. The heart which circulates the blood through the system is missing. To represent more completely the factors we have been discussing calls for this representation:



Note that this is a re-cycling procedure--from accounting at the operations level to operations analysis and program analysis which contribute at the cost benefit level to implementation and evaluation which feed back to planning which is also getting feed back from budgeting and implementation. This is a continuous process.

In short, in a systems approach to decision-making, "planning" is never complete, and it both embraces and permeates the decision-making process. Remember, decisions can be made without an examination of alternatives; and decisions can be made after an examination of alternatives; but unless alternatives are deliberately sought, weighed, tested, and revised, there is no system. Planning then, is the process of concurrently seeking, measuring, and revising alternatives. And this applies whether desired results are expressed as outcomes of programs, as outcomes of incidents, or however expressed.

While it is somewhat aside from the subject of this discussion, it

should be noted that if the planning is done in terms of programs, the records at the operations level must be kept in terms of programs. To decide on programs and benefits is of little value unless provision is made to develop a data base and reporting procedure (or management information system) which provides accurately and in detail for an analysis of effectiveness.

The elements of analysis may be described as the objectives, the alternatives, the costs, a model, and criteria for judgment -- the latter being, in this case, the standards by which results are measured.

The objective or goal must be established by the decision-maker. This corresponds to the goals, needs, or recognition of the problem generally described as a first step in linear sequences which employ the logical, scientific, or systems approach to rational decisions.

Alternatives are established after strategies, policies, constraints and other factors are taken into account and various courses of action have been compared. The decision-makers may choose any number of alternatives by which the objectives can be attained. The alternatives are not necessarily mutually exclusive, and in some cases the alternatives themselves may branch and produce other alternatives.

The original selection does not restrict revision, modification, or rejection of alternatives. An analysis of models will provide information which may alter the original selection of alternatives -- even during the process of implementation or testing.

Costs. The analysis process includes a consideration of the costs not only in terms of dollars, but also in terms of opportunities precluded. Therefore, in education, dollars expended should be considered only with a corresponding assessment of the impact on services. For example, in choosing a particular type of program for an extended school, the education decision-maker must look not only at the dollar expenditure by taxpayers but must determine the effect of that expenditure or its lack on services and opportunities for students. Unfortunately, in education, as in much of the public sector, the measurement of "loss- of- opportunities" (or "benefits") is usually difficult. The basic difficulty, as pointed out by Due, "arises with collective goods, which cannot be sold to the public, and any valuation must be based upon an estimate of preferences of the persons in society as a whole for the goods."[11] As a result, cost analysis in education must take place on two levels, first the level of effectiveness of expenditure and second, the level of benefit of services taking into account possible loss of opportunities.

Models. It is neither desirable nor necessary to test alternatives in actual operation if other means can be used. Models and simulations provide such means. Where results are subject to quantitative measurement, as in business and industry, models reduce the choice of alternatives to almost a mathematical formula. But because of the subjectivity of goals

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[11] John F. Due, Government Finance: Economics of the Public Sector (Irwin-Dorsey Limited, Nobleton, Ontario) 1968. p. 64.

and alternatives in education (for example, what is the benefit of worthy use of leisure time?) systems analysts rely less on mathematical analysis and more on models through which choices and judgments may be manipulated, tested, and revised. The model used in an analysis of an educational process is generally a representation of the universe. By observing the impacts of various alternatives on the model, the relationship between cause and effect in the real world or the real educational situation can be predicted with considerably greater accuracy and at less cost than by intuition and experience alone.

Criteria for Judgment. The next step is evaluation and the setting of priorities. Generally, the alternative which provides the maximum benefits over costs is regarded as the optimal one. All the alternatives are judged accordingly, and priorities of alternatives are established. A consequential evaluation is performed, where the outcomes are weighed in terms of their proximity to the stated goals. The process of analysis creates a loop where, after evaluation and analysis of results, a re-evaluation occurs. This circular process may modify goals, alternatives, and model structure -- the modifications in one sometimes being concurrent with modifications in another. Quade's description of this process suggests that it will involve a systematic investigation of the decision-maker's objectives and of the relevant criteria; a comparison - quantitative insofar as possible - of the cost-effectiveness (and benefit), the risk, and the timing associated with each alternative policy or strategy for achieving the objectives; and an attempt to design better alternatives and select other goals if those examined are found wanting.[12]

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[12] Quade, op. cit., p. 268.

The words "criterion" and "criteria" have been used in the sense of standards against which performance and results are measured -- hence, may not be completely determinable until alternatives have been tested.

For example, it may be found after selecting one of several alternative methods of reaching a goal that a revision of the goal is necessary, thus the standards for measuring success - criteria - are revised.

It should be noted, however, that there must have been criteria used in the selection of the alternative to be tested, and that these criteria had to be present before the selection. For example, it might be assumed that there are an unlimited number of alternatives in the choice of a spouse, a limited number of which are practical choices. Already a decision has been made between two alternatives -- check out every possibility or limit the field. And this choice required criteria-time available, money available, probability of a sample being representative of a population, and opportunity. If the choice is narrowed to a decision between three prospects, and one is selected, additional criteria are probably employed.

The point here is that the criteria for selection of alternatives to be tested are not necessarily the criteria against which the results of that alternative will be measured -- and, in fact, the outcome may, and probably will, result in a revision of the criteria for selecting alternatives in the future.

Keep in mind that there may well be a difference between criteria for the selection of alternatives to test and criteria for measuring the success of chosen method.

Chapter XI

"Alternative Models for the Organization and Administration of Vocational Education"

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The institutional organization of vocational and technical education is increasing in importance with the passage of each decade. It is true that we have had vocational education of some kind since the dawn of civilization. For example, in primitive civilizations the young were taught how to make spears, arrowheads, and clay pottery and other tools and implements. However, the teaching was usually done individually by parents or elders. Organized institutions for teaching vocational and technical education are of relatively recent origin.

We have evolved from a labor intensive society in the 18th century to a physical capital intensive society in the 19th and early part of the 20th century and during the last half of the 20th century we are rapidly evolving into a brain intensive society. What do I mean by a labor intensive society? In 1790 for example, 85% of the population of the United States lived on farms. All work with the exception of a small amount performed by the use of water and wind power was accomplished by human labor or the labor of animals. That was the reason that slavery was profitable in the 18th century and earlier. During the 18th century practically all crafts and skills were taught by apprenticeship or were passed from father to son and from mother to daughter. There were no organized public educational institutions available for providing vocational and technical education.

As we moved into the 19th century the industrial revolution developed in full force. We began to use machines instead of human and animal labor. The steam engine was developed. Later the internal combustion engine came into wide use and still later in the 19th century we began to use electricity. The per capita production of goods and services was enormously increased because by using machines the individual worker could greatly increase his productivity per man hour. However, it required the development of organization to bring these men and machines together. Therefore, the corporation became the dominate organizational structure in the private sector of the economy. During this period which began in the later part of the 18th century and continued throughout the 19th century and up through World War II, the society placed major empahsis on the increasing of productivity by the investment of capital in machines rather than men. Therefore, we called this period in our history, the physical capital intensive society. This is not to say that we did not give emphasis to education during the 19th century and the first half of the 20th

century but it is to say that investing capital in human beings was second in priority to the investment of capital in machines. As a matter of fact, Heilbroner who you will recall wrote the famous book the Worldly Philosophers, in a recent issue of the Saturday Review of Literature stated that the military industrial complex was still the first priority of the nation and that education and other human oriented goods are in a much lower priority. Convincing proof of this statement is President Nixon's veto of the appropriation of Health, Education and Welfare on the grounds that a $1,000,000,000 increase in this appropriation was inflationary while he unhesitatingly approved an appropriation in excess of $70,000,000,000 for the military industrial complex. The appropriation for HEW was only slightly in excess of $19,000,000,000.

Let us now look at this period that I have called the brain intensive society. This period started approximately with the end of World War II. At that time we began to develop the science of cybernetics and automation. We found that it was possible by this technology to eliminate most common labor and also many types of simple skill occupations. It is now evident that the education needed for a brain intensive society can no longer be provided by passing on skills from father to son or from mother to daughter or by apprenticeship. New types of occupations requiring technical and general education are developing every year. Manpower experts predict that within 15 years a substantial percentage of the employed people will be employed in jobs requiring vocational and technical training that do not now even exist. It is also anticipated that at least 75% of all jobs will require post-secondary training in an organized institutional setting.

Therefore, it is evident that we are going to have to invest relatively more of the GNP in the future in developing human capital than we have in the past. I would not have you believe that we are going to reduce our intestment in physical capital, however, the evidence available clearly indicates that we are going to have to increase our investment in human capital at a greater rate than we increase our investment in physical capital. Actually, we have already done this during the last 30 years. In 1929 we invested only 2% of the GNP in elementary and secondary education. In 1969 we invested approximately 4% of the GNP in elementary and secondary education. Although complete data are not available, the percentage increase in expenditure for vocational and technical education, junior college and higher education has been even greater. In a recent book entitled the Economics and Financing of Education which I co-authored with Dr. E. L. Morphet of the University of California, I predicted that by 1980 that 12% of the GNP would be invested in elementary, secondary and higher education, public and private. I also predicted that about 6% of the GNP would be invested in elementary and secondary education and another 6% in all post secondary education.

I would not like to leave the impression that we gave no emphasis at all to organized vocational and technical education in the 19th century and the first half of the 20th century. You are all well aware of the Morrill Land Grant Act passed by Congress in 1862. This act started higher education along new channels for technical and professional education such as engineering, agruculture and home economics.

You are also familiar, of course, with the Smith Lever Act of 1914 which provided for extension services by county agents, home administration agents and with the many amendments to that act. You are, of course, familiar with the Smith Hughes Act of 1917 providing for the first time federal funds for vocational education below college level. This act has also been amended many times, but most significantly by the Vocational Education Acts of 1963 and 1968. However, despite all of the emphasis we have given to vocational and technical education in the nation as a whole only 26% of the enrollment in grades 9 - 12 were enrolled in vocational technical education in 1966. But, only 10.8% of the total enrollment of high school students in grades 9 - 12 in 1966 were enrolled in any type of vocational education other than home economics and vocational agriculture. It is anticipated in the future that not more than 10% of the population will obtain baccalaureate degrees. What will happen to the other 90%? Let us assume half of this 90% are women, but about 1/3 of all women work at the present time. One third of 45% is 15% when added to 45% of the total population comprised of men who will not receive college degrees, equals 60%. This 60% of non-college graduates certainly will have to find some sort of employment. It compares very unfavorably with the 10.8% of the high school students taking vocational education other than home economics and agriculture. I am excluding home economics and agriculture because these two areas of education, while extremely important will not provide many pupils with salable skills.

The need for post secondary, adult and continuing vocational and technical education has been recognized by manpower experts for many years. However, only approximately three million adults were enrolled in any type of part time, continuing or full time vocational education in 1968. The total adult labor force in 1970 was estimated at 85 million people in a manpower report of the president published by the U.S. Government Printing Office in April 1968. Therefore our institutional provisions for vocational education for adults is far from adequate.

I have gone to considerable length in pointing out the inadequacy of vocational education at the present time because this inadequacy is closely related to organization and administration for vocational education. If we meet the needs of the nation and the needs of the individual by 1980 we should at least triple the enrollment in vocational and technical education. Our present institutions and present organizational structures are far from adequate to provide for this vitally needed expansion of vocational and technical education.

It is true that there are many factors which have affected unfavorably the enrollment in vocational and technical education of both youth and adults. This inadequacy has been caused in part by traditional cultural attitudes toward vocational education. However, I believe that the chief cause of our inadequate provision for vocational and technical education is that we simply have not provided the institutional arrangements and organizational structures and even the leadership needed to accomplish

the goal of providing adequately for the world of work. I am not referring to the lack of leadership of vocational leaders, but to the lack of leadership on the part of superintendents of schools and boards of education, governors, and state legislators in recognizing the need for vocational and technical education. In many states provisions for vocational education are haphazard and uncoordinated and inadequate. While the Vocational Education Acts have long required that vocational plans be presented to the Office of Education for approval, these plans have largely been concerned with the details of administering vocational education within the structural arrangements available. The 1968 Act as you know requires a long-range plan for vocational education as well as a short-range plan. Hopefully the long-range plan developed by the states will involve a critical examination of the organizational plans for vocational education in each of the states.

Just recently Dr. Gerald James, President of Rockingham Junior College, and I were employed by the Kentucky State Department of Education to make a study of the organization of vocational education in that state. Dr. James is an expert in vocational education and at one time served as Director of Vocational Education for the State of North Carolina. We found a lot of enthusiasm for vocational education in Kentucky, but a very uncoordinated organizational structure for vocational education. Following are some interesting characteristics of that plan:

1. Kentucky has 15 junior colleges administered through the Board of Regents of the University of Kentucky. These institutions are largely academically oriented and give only a very limited emphasis to vocational and technical education.

2. The state operates 12 area vocational schools which are completely supported by state and federal funds with the exception of some fees paid by adults. These area vocational schools are operated directly by the Bureau of Vocational Education under the control of the State Board of Education. These area vocational schools provide training in trades and industries for secondary students but their major emphasis is vocational and technical training for adults. These twelve area vocational schools operate 28 vocational school extension centers in high schools but these centers are directly under the control of the State Department of Education. However, local boards of education do provide the physical facilities for these extension centers, but they are reimbursed by the state for the costs. Therefore, the entire cost of these extension centers is provided for from state and federal funds.

3. The 1968-69 total of 325 regular or comprehensive secondary schools offered vocational education programs under the control of local boards of education. The cost of these programs was provided for from state, federal, and local funds. In Kentucky the junior colleges are being developed largely without reference to the need for vocational and technical education at the post-secondary level. The area technical schools are

being developed without adequate provisions for general education which is needed for implementing vocational and technical education. Finally, two vocational programs have been developed at the secondary level--one operated directly by the state and the other operated by local boards of education.

I note that this seminar is particularly concerned with Planning Long Range Programs of Vocational Education for Rural Areas. However, I don't see how it is possible to consider the organization for vocational education for rural areas without also considering the organization of vocational education in urban areas. Most rural boys and girls now being reared on the farm will leave these farms and obtain employment in urban areas. Therefore, it makes little sense to develop institutions providing vocational education oriented primarily to rural areas. These rural boys and girls in the future will be competing with urban boys and girls for the same types of positions. Therefore, it does not make sense to develop a segregated system of vocational education, one for rural people and the other for urban people.

What then are some of the requirements for an adequate system of vocational and technical education?

1. This system must provide institutional training for the world of work for most of the population both urban and rural.

2. Education for the world of work must begin somewhere in grades K-12 and continue throughout life.

3. Pre-vocational training should start at least in the junior high school and continue through senior high school.

4. Vocational education for some students must be provided for in the senior high school because many of them will be compelled to enter into employment either before or immediately after graduation from high school.

5. Institutional arrangements must be provided for post secondary training in vocational and technical education. Students leaving high school should have ready access to such programs.

6. Institutional arrangements will be needed to provide for adults throughout their lives in order to meet their vocational needs. It has been estimated that skilled laborers will need to learn as many as three occupations during their life time.

7. Institutional arrangements for general education should be provided for in the same institutions provided for vocational and technical education. Modern programs of vocational and technical education require general education in math, science, and communication skills. Furthermore the humanistic goals of education can not be safely ignored. To develop skilled technicians without human values would be dangerous indeed.

What does all this mean for the organization of vocational education in rural areas and even small rural towns? The basic problem, of course, is sparcity of population. An adequate program for vocational and technical education including the needed types of programs is excessively expensive in small institutions. The problem is to get enough students together so that their needs can be met without excessive cost. The first problem that we face in organizing vocational education at the high school level is the large number of school districts we have in the United States. We still have 19,000 school districts in the United States; we probably don't need over 1,500 to 2,000 school districts.

We have far too many small high schools in the United States. More than half of the high schools in the United States have less than 250 students in grades 1 - 12. At the senior high school level, a variety of vocational education experiences cannot be provided for without very high costs except in high schools which have 1,000 students or more in grades 9 - 12. Even in high schools of 2,500 there is a limit to the number of vocational programs that can be offered without unnecessarily high costs. Therefore, the following first steps must be taken in order to provide vocational education at the high school level in rural areas and small towns. First, consolidate all districts with less than 15,000 to 20,000 population with other districts. Second, where feasible consolidate all senior high schools with at least 1,000 pupils in grades 9 - 12. Now where do we go from that point? After this is accomplished we will still have long distances to travel in order to get enough population together to provide vocational education at a reasonable cost. One alternative is to set up area vocational schools providing vocational education at high school level which are independent from the local boards of education. This has been done in the state of Kentucky. The problem with this type of arrangement is that vocational education is not coordinated with general education. It also tends to develop a class type of education. Kentucky has attempted to avoid this by having students register at the local high schools and spend three hours at the local high schools studying general education and then catch a bus and go to the area vocational school or extension center and then study vocational education for three hours. After completing their vocational education in the afternoon they catch a bus back to the local high school in which they are registered and then catch bus back to their home. Many rural students under this arrangement spend an excessive amount of time traveling.

Another alternative would be for the state to establish comprehensive high schools which provide vocational education as well as general education. Obviously, even under the most advanced consolidation program there will be many schools left in rural areas which are not large enough to support a very extensive program of vocational education. Therefore, the state should designate certain of these schools as comprehensive area trade schools which would serve several high school

attendance areas. However, under this plan a student does not register at his local high school if it is located a considerable distance from the comprehensive high school and spend a half day at that school and the other half day at the area vocational technical center. Such a student would be transported directly to the comprehensive high school providing vocational and technical education and spends his entire day there. This means that express transportation not connected with the transportation system to the other high schools served by the vocational and technical center should be provided for the students attending the area schools who live a long distance from such schools.

In urban areas, where high schools may be located within 5 to 6 miles of the comprehensive high school providing for their vocational education needs students may without handicap register at their community high school for a half day and at a comprehensive high school providing vocational education or at an area vocational school for half a day. In my judgement, the specialized area vocational school serving high school youth which is not a comprehensive high school is not as satisfactory a model as an area vocational school operated in conjunction with a comprehensive high school. My reason for this preference is: (1) it is easier to coordinate general education with vocational education in a comprehensive high school than in a plan where general education and vocational education are administered in separate school centers under different principals, (2) the comprehensive high school model is less expensive than the dual center model, (3) segregating vocational students at the high school level at different school centers tends to result in strengthening the barrier between casts and class.

How should vocational education provided by the secondary schools be financed? In most states vocational education at the secondary level is financed through a combination of state, federal and local funds. However, there is considerable support at the present time nationally for the financing of all elementary and secondary education exclusively from state and federal funds. That recommendation was recently made by the Intergovernmental Commission. That recommendation has also been made recently by Dr. James Allen, U.S. Commission of Education and by the Governor of Michigan. At the present time I am serving as Director of the National Educational Finance Project. I find that the sentiment is growing throughout the nation for the financing of all elementary and secondary education, including vocational education at the high school level, entirely from state and federal funds. This movement has its genesis in the philosophical belief that educational opportunities should be equal for all children. I do not know what the future will bring nor do I care to predict it. However, I see no danger in financing vocational education entirely from state and local funds provided the vocational programs are

administered under the control of local boards of education. What would be bad, however, would be to develop a dual system of education. One system that is for vocational education administered enterily by the state and the other system administered by local boards of education. I am referring to education provided for grades K - 12. Any sound model for the organization of vocational education at the secondary level must meet the requirements that such education be coordinated with general education for grades K - 12.

What about provisions for post-secondary vocational education in rural and small town areas? Two main alternatives have developed, but each of these alternatives has certain variations. One alternative is to develop comprehensive junior colleges providing for vocational and technical education as well as for college parallel education and adult education. Under this model a comprehensive community junior college has a completely open door policy. Students may enter such an institution without passing the hurdles of entrance requirements. Adults may enter such an institution without even finishing high school. Where this model has developed the community junior college in rural areas usually serves a number of school districts. Since it serves a number of districts the junior college will generally have a board separate from the boards administering elementary and secondary schools. However, a variation of this plan is for the state to operate such junior colleges without the use of local boards. Personally, I prefer the community junior college with a local board such as exists in Florida and California. This plan provides an ideal opportunity for coordinating vocational education with general education. Furthermore, it reduces the cost of vocational and technical education because only one administrative structure is required for both providing for general education and vocational and technical education.

The model of separate operation of post-secondary vocational-technical institutions and junior colleges is found in Kentucky and Georgia. It is true that there are some differences in the way these programs are administered and financed in these two states, but the patterns are similar. This plan tends to develop a class oriented attitude toward vocational and technical education. That is, the impression created is that if one has enough brains he will take a transfer program in a junior college or go directly to a four year academic institution. If he does not have enough brains he will go to an area vocational technical school. I am not saying that this attitude does not exist to some extent in a comprehensive community junior college, however, in a comprehensive community junior college a student may be able to take part of his work in vocational technical education and part of it in regular general education courses. Furthermore, the general public does not know what type of program he is taking. In such an institution if a student finds that the academic program does not meet his needs he can change his program to a vocational technical

program without the difficulty or stigma of changing institutions. This facilitates counseling and guidance. The comprehensive community junior college can provide for post-secondary vocational and technical education for rural areas perhaps better than any other organizational arrangement now existing.

How should these comprehensive community junior colleges providing for adult and post-secondary vocational-technical education be financed? As I have already indicated, these institutions especially in rural areas will serve several school districts even if the consolidation that I have recommended is accomplished. Should local taxes be utilized for the support of these institutions? I believe that the problems of using local taxes to provide a substantial part of the cost of operating these institutions are greater than the benefits. It is very difficult to collect taxes from several districts because one must deal with different taxing authorities. Furthermore, the only local tax available for the support of education in most states is the property tax. The elementary and secondary schools, city governments, and county governments are already making such heavy use of this tax that extreme resistance to further use of the property tax is becoming nation-wide. It would be much more equitable and efficient to finance these post-secondary institutions entirely from state and federal funds. Many of these institutions charge fees. However, if fees are charged they should be very small. The fees should not be high enough to prohibit any person desiring and needing post-secondary education from receiving that education. Personally, I would like to see all such fees abolished. A student fee is essentially a tax. A student is not as able to pay a tax while he is attending school as when he is working. We can devise much better taxes than fees.

In conclusion I have not examined all of the possible alternatives for providing for vocational and technical education in rural areas. However, I have attempted to evaluate the most promising models for providing opportunities for vocational and technical education not only in rural areas but also in urban areas.

Finally, what organizational structure is needed at the state level in order to facilitate the efficient organization of vocational education? It is obvious that the model that I have recommended requires a high quality of leadership and technical consulting service at the state level. The Amended Vocational Act of 1968 requires the establishment of a lay Advisory Council for vocational education at the state level. This is excellent, but these councils cannot provide the state leadership and technical assistance needed for the organization and administration of vocational education. Those services must be provided by a well staffed bureau or division of the state department of education. State wide and regional planning are essential to the success of any adequate model for the organization of vocational education. As a matter of fact, the

leadership and the technical assistant roles of the state department of education for all phases of public education have been greatly extended and improved during the past five years. Summarizing, our model for the efficient organization involves:

1. The reorganization of school districts into districts of efficient size;
2. The consolidation of unnecessary small high schools into more efficient operating units;
3. The establishment of comprehensive high schools which serve as area vocational schools;
4. The establishment of comprehensive junior colleges providing college transfer and general education programs, vocational-technical education and adult education.

This model cannot be established or properly coordinated unless strong, effective leadership and technical assistance are provided for at the state level.

Chapter XII

"Operationalizing Selected Vocational Programs at the State Level"
Joseph Malinski, Director of Program Planning and Development
University of Minnesota, Minneapolis, Minnesota

Introduction:

Operationalizing vocational programs at the state level is determined in how the state has made previous for and is organized to offer vocational education. Minnesota is considering establishing approximately 100 schools throughout the state as vocational centers for high school students and adults. This will include 26 existing area vocational-technical school districts. Thus organized it will serve both urban and rural districts. The basic concepts are explained by the answers to the following questions:

What is the basic concept of a vocational center?

The vocational center is a group of schools cooperating in planning and providing vocational education in several vocational disciplines for all students of all member schools. Students will take basic education subjects at their home school.

The center group can then exercise one or more of four options.

1. Offer program in each school.
2. Transport equipment (most mobile).
3. Transport teacher (second most mobile).
4. Transport pupils (least mobile).

The vocational center does not eliminate previously established vocational courses at member schools. It does provide access to these programs for students of all member schools and it serves to expand present vocational offerings by adding new courses and special courses that no single school could support.

How will students be scheduled?

Scheduling problems are inherent in any school. The smaller the school the more difficult the scheduling problem becomes. By joining a vocational center group, a school could find scheduling problems relieved by having additional options. Modular scheduling for all member schools is a distinct possibility.

Who will plan the programs for the centers?

Basically, the vocational teachers of member schools would develop an inventory of present programs, new program objectives, and priorities for each vocational discipline.

At present, what legal barriers prevent doing this?

None. The Joint Powers Act permits school districts to do jointly anything they may do separately. For further specific laws see M.S.A. 123.39, 124.18, 124.20, 124.22.

What administrative barriers exist at present?

There are problems which will emerge that will require little if any change in regulations, but some changes in administrative procedure may need to develop.

What might be required of a center?

1. Cooperating agreements with member schools.
2. A Vocational Director (not necessarily full-time but half-time or more)
3. Offer appropriate occupational programs with the planning, operating and evaluative assistance of these units of the Vocational-Technical Division.

    a. Agriculture Education

    b. Home Economics Education

    c. Industrial Arts Education

    d. Office Education

    e. Distributive Education

    f. Trade and Industrial

    g. Health

    h. Technical Education

    i. Cooperative programs in any of the above curricular areas

    j. Vocational Guidance Counseling for high school students and adults.

Will schools be required to join?

No! It is entirely a voluntary grouping. The school at the center may have a sound reason for refusing. Any school may choose to join a group other than the one suggested or two groups may choose to merge.

An analysis of the suggested plan for secondary vocational education centers, excluding the seven-county metropolitan area, reveals the following:

1. Approximate number of centers 100

2. Average enrollment per center (estimated) 2,200

3. Estimated total number of additional students who could be served in vocational or career development programs based on 1966 enrollment 33,306

4. Average travel distance for students by planning area (approximate)

Planning Areas A and B	16.6 miles
Planning Areas C and D	13.7 miles
Planning Areas E and F	9.8 miles

Students from four districts would travel 30 miles or more to a center.

Students from thirty-four (34) districts would travel 20 to 30 miles to a center.

Over 90 percent of the students would travel less than 20 miles to a center.

Chapter XIII

"Operationalizing Selected Vocational Programs at County Levels"
Panel of Local Directors
Moderator: Dr. Ray Perkins, Co-director of institute, University of Florida
Mr. Cliff Bellum, Director Vocational, Technical and Adult Education
Board of Public Instruction
Sarasota, Florida
Mr. Carl Rehwinkel, Director Withlacoochee Vocational and
Technical Center, Inverness, Florida
Mr. Mike Zekas, Director Tom P. Haney Vocational and
Technical Center, Panama City, Florida
Mr. Lawrence Oglesby, Director Bradford Union Vocational and
Technical Center, Starke, Florida
Mr. Wayne Saunders, Director Washington-Holmes Vocational and
Technical Center, Chipley, Florida

Each panel member was introduced and then responded to a direct question. These questions, and a summary of the panel member's response are presented below.

Following the comments by each panelist, questions from Institute participants were directed to whichever local director the questioner chose. For the most part, these questions were amplifications of the previous ones, pursuing specific points in more depth.

There was considerable interest in questions related to residence facilities. None of the panel members had experienced operating programs where students were housed within the institution. None of the panelists anticipated this development on their campuses or within their systems. Several participants seemed to think residential facilities will be of growing importance in providing occupational education for rural youth.

At the conclusion of the formal meeting, each of the panelists was sought out by participants to continue questions of specific and particular interest to the individual.

CLIFF BELLUM: Having been a part of the occupational education scene through times when the "star of vocational education rode high" and when the emphasis shifted to other areas of education, what do you see as the major differences between these types of situations, as viewed from the local director's seat?

"The problems remain basically the same. Constant efforts are required to maintain enrollments, keep programs abreast of changes in industry, provide equipment and materials for quality instruction, and compete with the private sector for instructional personnel. Perhaps there are degrees of severity in each of these, but they remain the back-bone and constant needs of all programs.

"When laymen are aware of the needs and programs in vocational education, the amount of yield which your efforts have is increased--but this is, primarily, a matter of degree. I have yet to see the time when you could take much for granted without soon finding yourself with real problems. It seems to me that instead of looking at these changes as changing the need for certain kinds of activities, one should view them as altering the amount of progress which one's best efforts can produce. The dimensions of the job don't really change that much under one set of conditions as opposed to the other."

CARL REHWINKLE: How does the construction and planning of new facilities affect the task of the Vocational and Technical Administrator?

"There is a lot of satisfaction, and maybe some inspiration, in seeing an expanse of open space grow into a campus. Many things we don't ordinarily look for in an existing building have to be considered. Location in relation to the schools the center will serve is a very important factor. In many ways the time the student spends on a bus coming to and returning from the center is lost time. This also brings on the question of having your schedule dovetail with the bus schedules set up for the individual schools which will be sending students to the center.

"After the geographic 'center' has been decided, you then have to find what specific plots of land are available and examine them for drainage, accessibility, compatibility with the general building design, and general appearance.

"Then there is the problem of making the building functional. I told the architect to pack a bag and we visited operating schools over a wide area, mostly to see where others had solved and created problems for the program through their choice of building design. We looked at buildings and asked questions of teachers, administrators, students, board members, parents, builders, and everyone else we thought might have some worthwhile advice to offer. So far we feel this paid off very well, because our buildings are comfortable, usable, and attractive.

"The program must be the basis for all building design. That's where it starts and ends. Sometimes you can shift a new program into space which was designed for another use, but this almost always brings some new dimensions into the program."

MIKE ZEKAS: What do you see as the major effects of mixing adult and youth in the same institution and/or in the same programs?

"I suppose the biggest problem is that sometimes there have to be two sets of standards or rules for conduct. One illustration of this would lie in the question of smoking. Even here, some flexibility is necessary.

"Our feeling is that the presence of these older students has a great stabilizing and guidance influence on the younger students. Quite often you will hear one of the 'old hands' emphasizing to the high school boy that certain kinds of information or behavior will be essential or unacceptable on the job. They often repeat the importance of making the most of the opportunity which the program offers, both as an avenue to job entry and to security and progress in later years. Somehow, this kind of advice means more coming from an adult who found it necessary to return to school than from a parent, instructor, or counselor.

"We welcome the older student both because we feel we have something to offer him and he can assist us in our work. The positive values of his presence more than make up for any undesirable things he may cause. They also keep the entire staff on its toes, because they aren't willing to waste time or permit others to, where they have so much investment.

"It is important to remember that mixing high school and adult students can result in some problems, but when you are aware of this the little effort required to prevent interference with the benefits is no great problem."

LAWRENCE OGLESBY: Would you outline some of the unexpected things which arise when a completely new program is initiated? Wasn't your Commercial Truck Driving School the first in this area?

"Yes. When we were first approached about offering the course the biggest problem others had encountered in trying to develop it was a suitable off-street practice driving area. Some others had set the thing up and then had their plans upset when someone cancelled their access to a driving area. We have Camp Blanding near us and when I contacted the people there, they not only were generous in permitting us to use it, but they even gave us our own private gate for getting into and out of the area. We have the ideal set-up there.

"There are miles and miles of paved roads and streets, warehouses, loading docks, and every kind of intersection and road arrangement a driver is likely to find anywhere. There are also large paved areas for practicing backing, turning, and other skills. We also have very nice classroom space there.

"When we began the training program for instructors there were many organizations and people who provided support, materials, personnel, and many other kinds of assistance in preparing our two instructors. The Trucking Association, insurance companies, Narcotics Bureau, Transportation Department, trucking companies, and the State Department of Education were all eager to provide whatever they could to make the course better and the instructors more capable.

"Another thing we were fortunate in was getting two really top-notch people to instruct in the course.

"We soon found that having a rigid set of starting dates for cycles was a handicap. This was solved by examining our curriculum and deciding that it was not really important whether the student learned to drive or keep a log first. He would have to learn both, but the sequence wasn't that important. Now, a student can enroll at almost any time. This has helped to boost enrollments. You might be interested in knowing that women make up a sizeable part of our enrollment and were among the first to enroll. Husband and wife teams operating trucks are able to spend more time together, increase their income, and solve many other problems. With all the power-assist features on a modern truck, you don't have to be a six-foot, 200-pound man to operate them.

"We are finding a long line of prospective employers waiting to give jobs to our graduates. This is no problem. The Florida Trucking Association is helping our recruiting efforts through advertising in their magazine and in advising us on material for our brochure and other material.

"Equipment manufacturers have been generous in lending us expensive equipment. In some cases they even provide fuel, maintainence, literature, and other things which enable us to keep student costs to a minimum.

"We have also initiated a course for wiremen which is attracting students from a several hundred mile radius. This was begun primarily because a local firm needed a program for its employees but others have learned about it and enrolled.

"Most of the things we thought would be big problems in starting a new program haven't been insurmountable, because industry, the community, State Department personnel, and others have provided the kinds of support and assistance which paved the way."

WAYNE SAUNDERS: Are there special considerations inherent in serving as an agent providing vocational programs for institutions which send their students to you?

"Probably the most difficult problem is making your schedule so that students who ride buses into the feeder high schools can be transported to the vocational center and arrive in time to begin classes. Since not all high schools operate on the same bus schedule and not all schools are the same distance from the center, this can become quite complicated.

We have found the use of mini-buses which operate on a shuttle schedule helps solve the problem. These also provide some measure of economy when compared with the use of regular school buses.

"Being in a somewhat remote and isolated setting limits your accessibility to adults in the evening as well. Accommodating to the schedules of these students is sometimes more difficult than it is to work with the high schools. In some ways you must offset the negative effects of a drive of several miles to reach the center by offering a better quality or more interesting program. We feel this added responsibility helps us do a better job, and some of this is automatically carried over into the high school level program. We have a continuing obligation to provide appropriate programs for our adults and when we help them we gain in many ways as well."

Chapter XIV-A

"Evaluating Planning Programs Selected for Implementation"
(Panel representing four State Departments of Education)

Virginia Bert, Vocational Studies Assistant, RCU
State Department of Education, Tallahassee, Florida
George Mulling, State Director of Vocational Education, Atlanta, Georgia
William Lovelace, Department of Vocational Education, Texas Education Agency, Austin, Texas

C. O. Neel, Kentucky State Department of Education, Division of Vocational Technical and Adult Education, Frankfort, Kentucky.

Virginia Bert:

In developing procedures to evaluate the effectiveness of vocational programs specifically designed to meet the needs of youth and adults who live in rural areas, there are several questions to which vocational decision makers must seek answers. My purpose is to identify those questions and hint at some answers.

1. What is evaluation?

   If we are to think intelligently about evaluation it must be defined; and I offer this definition for your consideration.

   > It is a process consisting of expressions of scope and objectives of vocational education with sufficient clarity and explicitness as to suggest operational evidence indicating achievement in particular areas. The process includes pertinent data which describe the current status of vocational programs. It also includes the analysis of data to determine, in terms of quality and quantity of success, the extent to which a vocational program is meeting established objectives.

   Evaluation is not data, but a process which provides data and other information from which inferences may be drawn and necessary changes planned.

2. Who is responsible for evaluation?

   Vocational educators, as well as general educators, are quilty of attempting to evaluate program effectiveness in isolation. It is my opinion that evaluators must be closely associated with persons who plan programs and with teachers responsible for conducting programs at the local level. I believe evaluation must be a team effort in which program administrators, supervisors, teachers and specialists trained to gather, treat and analyze data must become involved.

3. When will evaluation occur?

If evaluation is a process which provides data and other information as a basis for making decisions about program effectiveness and efficiency, then evaluation must be constant. It is not an event that takes place only upon conclusion of the vocational program evaluations. Some are made momentarily by teachers as they choose and select learning experiences, develop organizational structure and weigh the results of those activities against stated objectives. Evaluation is needed when students enter a program. We may speak of this as a preassessment of student ability. Throughout the program, additional assessments are made of the students' success in achieving program objectives. At the end of the training program another assessment should be made to provide information needed in determining change in student achievement. Student success is also assessed after employment in order to collect information which might be useful in making judgements concerning program effectiveness.

4. What types of evaluation are needed?

In general, vocational educators have used the follow-up study or some combination of follow-up with process assessment as a type of evaluation. This type of evaluation may collect many bits of information; however, follow-up studies are primarily used to determine the level of employment students have been successful in achieving. A primary assumption to be made in using this type of evaluation is that if students achieve employment in jobs for which they have been trained, then the vocational training program has been successful. I would like to caution you against over generalization about program effectiveness based upon full student employment. For example: When highly skilled workers in a given occupation are being dismissed from work because of reduced production; it is a fallacy to assume that students trained in a vocational program to work in that occupation are failures or that the program designed to prepare them to work effectively in that occupation has been less than successful if they do not secure employment.

Another type of evaluation that has been commonly used in some vocational training areas is the standardized test. According to some experts in thefield of evaluation, this type of assessment is useful in trades and technical fields requiring a high level of literacy. Many vocational educators have demonstrated the invalidity of paper and pencil test for vocational students. In most cases I would warn against using standardized tests to measure program effectiveness specifically planned for youth and adults in rural areas, especially if the program is innovative or of an emerging type.

The last type of evaluation I shall have time to mention may be termed program evaluation. By this term I mean evaluations of program effectiveness based upon statements of specific objectives to the unit level of instruction. This type of evaluation requires

that objectives be stated in terms of expected student performance. The statement of objective must also include teacher criteria for evaluating effectiveness and the teacher established conditions used in demonstrating performance. In my estimation this is the only justifiable type of evaluation to use in assessing the value of vocational programs.

There are many references educators and evaluators can use in developing a program to assess effectiveness. The following list may be helpful.

a. Bloom, Benjamin S. Taxonomy of Education Objectives, Handbook I: Cognitive Domain. New York: David McKay Company, Inc., 1956.

b. (EPIC). Educational Objectives Workbook - Part I. (mimeographed) Tuscon, Arizona: EPIC Evaluation Center, 1967.

c. _____. Educational Objectives Workbook - Part II. (mimeographed) Tuscon, Arizona: EPIC Evaluation Center, 1967.

d. Krathwohl, David, et al. Taxonomy of Education Objectives, Handbook II: Affective Domain. New York: David McKay Company, Inc., 1964.

e. Mager, Robert F. Preparing Instructional Objectives. Palo Alto, California: Fearon Publishers, 1962.

f. Mager, Robert F., and Beach, Kenneth M. Jr. Developing Vocational Instruction. Palo Alto, California: Fearon Publishers, 1967.

Chapter XIV-B

"Does the Addition of a Local Director of Vocational Education Bring About Desirable Results in Regard to the Nature, Scope, and Quality of the Vocational Program?"

George W. Mulling, State Director, Vocational Education
Georgia Department of Education, Atlanta, Georgia.

I was asked to take a particular program objective that we had established at the state level and to describe for you the procedure we plan to use in evaluating the effectiveness of that program. The program I have chosen to discuss with you is one of employing local directors of occupational and vocational education in a system or systems that have 10,000 or more students in grades one through twelve. In the establishment of this position of local system or systems director, we expected certain changes to occur.

I have chosen this program to discuss with you the question: Does the addition of a local director of vocational education bring about desirable results in regard to the nature, scope, and quality of the vocational program? First it has direct impact regarding the topic of this conference, that is program planning, development and evaluation of vocational education in rural America; and secondly it illustrates the type of results we would expect a local director to bring about in measuring whether or not he has been effective. I would hope to learn from you whether the criteria we plan to use to determine if the director has been effective are appropriate in your opinion.

I will attempt to answer the following questions for you in my remarks:

First, what are some of the needs and conditions at the local level as viewed from a state level perspective that led to the initiation of a program of local directors?

Second, how do we propose to go about meeting these needs?

Third, how will we determine whether the local director of occupational and vocational education obtained the desired results?

1. Need for Establishing Local Director of Occupational and Vocational Education

The first problem had to do with the school systems organization in our particular state. We have over 190 public school systems with less than 10 percent having 10,000 students or more. Thus, unless systems were willing to go together in some type of consortium for the purpose of planning for occupational and vocational education, it would be impossible for them to provide a comprehensive educational program to all of their youth.

The second program was that local systems were completely void of leadership to help plan this aspect of their educational program. Although many felt the need for additional occupational and vocational education, few local systems had the staff competence to help plan, design, implement, and supervise such a program.

The third problem was one of insufficient local funds to support adequate leadership in the area of occupational and vocational education.

The fourth problem was that many systems were now beginning to receive under Title I of ESEA, and other titles, considerable amounts of funds. In our opinion, these funds were not being fully utilized in many instances toward the development of comprehensive educational system responsive to the needs of all youth.

The fifth problem, at the time we were considering the establishment of a position of local director of occupational and vocational education, was that only the four larger systems in the state had such a position. It was felt that this type of leadership should be extended on some basis to other systems in the state.

II. Procedures for the Establishment of Local Directors of Occupational and Vocational Education

First, it was decided that a local director of occupational and vocational education would serve as a catalytic force in creating a climate that would be conducive to bringing about desirable changes in the nature, scope, and quality of the local vocational education program.

Secondly, the decision was made to support 75 percent of the salary of a local director of vocational education in those systems or combinations of systems with 10,000 or more students who were willing to sign a cooperative statement of agreement. (We could describe in more detail some of the specific criteria that local systems have to meet.) At the present time, four local directors of occupational and vocational education have been added in urban systems in the state while five have been added to serve more than one system in rural areas of the state.

III. Procedures for Determining whether or not Local Directors Bring about Desired Results

It should be made clear that the intent of the evaluation effort will not be to make an in-depth determination of the effectiveness of particular vocational programs in the system or systems. Rather the intent of the evaluation is to determine if the employment of the local director of

occupational and vocational education does result in certain designated changes in the nature, scope, and quality of vocational programs.

A short range evaluation will consist of collecting certain data at the end of the local director's first two years of employment. Long-range evaluation may be the checking of data at the end of three, four, and five years of employment.

In determining whether or not positive changes that have occurred are significantly greater than those that would have occurred normally, two types of comparisons will be made:

First, the data collected during the local director's first two years of employment will be compared against the results obtained two years preceding his employment.

Secondly, data collected regarding the local director's results during his first two years of employment will be compared with results obtained from other systems during the same period of time with similar socio-economic characteristics. It is anticipated that one urban type community will be selected for comparison and one or two rural combinations of systems will be selected.

Third, the state staff member will assist each local system director in the collection of this data and will check its validity.

Fourth, data collection sheets are being prepared for each local director so that he might set up his files to collect such information.

At this point, I would like to discuss with you some specific objectives we hope the local director would be able to accomplish, the data we would collect to determine whether or not these have been accomplished, and whether or not this data will be compared with the two previous years and with a controlled system.

It was anticipated that as a result of employing the local director of vocational education, the following results would occur in greater proportion than they would have occurred if such an individual had not been employed.

1. Increase in program development in exploratory, prevocational programs both preparatory and adult

2. Increase in local financial support for vocational education

3. Increase in the proportion of vocational students who are handicapped or disadvantaged

4. Increase in the number of high school graduates and dropouts attending post-secondary area vocational-technical schools

5. Increase in efforts to relate the more academic phase of the curriculum with the more vocational phase

6. Increase in the number of vocational graduates available for jobs that are employed in fields or related fields for which trained

7. Increase in the number of students enrolled in vocational courses

8. A decrease would occur in the dropout rate in the system

9. An increase in the proportion of vocational programs that have an active advisory committee

10. Increase in the number of in-service programs provided both vocational and non-vocational teachers regarding the total school's responsibilities to promote the career development of all youth

11. Increase in the career development activities in grades K through six

12. Increase in the modification of existing vocational programs

13. Improve local plans for vocational education

14. The implementation of cluster vocational programs at the secondary level

15. Increasing the holding power of vocational programs

Summary

What I have presented to you today represents our thinking to this point and we are in the process of trying to finalize our thoughts regarding an evaluation model that we might use to determine whether or not the employment of local directors in occupational and vocational education does in fact result in significant enough change to justify extending this program statewide or in determining what steps we might take to further enhance the effectiveness of local directors of vocational education.

Chapter XIV-C

"Evaluation of Vocational Education in the Public Schools of Texas"
William Lovelace, Assistant Director, Vocational Program Development Division, Texas Education Agency, Austin, Texas

Examples of the forms used are included for Sections A and A-1. The procedures apply to all the areas listed by sections.

Procedures

The total evaluation of a school may be done, using evaluation instruments provided by the Texas Education Agency, by two specific groups:

1. A self-evaluation by the school personnel and selected members of the community.

2. A visiting committee composed of members from the Texas Education Agency staff.

The superintendent of the local school will be notified that the district is requested to conduct a self-evaluation of its total vocational programs.

The superintendent of the district shall designate an evaluation steering committee for the district. The steering committee should be composed of administrators, over-all vocational advisory committee members, vocational teachers, counselors, and academic teachers. The number of committee members shall be left to the discretion of the superintendent, but should consist of no less than one person from each of the vocational areas.

After completion of self-evaluation, the superintendent of the school district shall return the completed evaluation instruments to the Vocational Program Development Division of the Texas Education Agency. Representatives of the Texas Education Agency will make evaluation visits on a random basis or by request of the superintendent. The visiting team shall make a final evaluation and will report to the superintendent with recommendations and suggestions for action.

The evaluation instruments for the self-evaluation are to be completed as indicated below.

As a composite evaluation for the school district by:	As individual evaluations by each teacher of:
Administrators - Section A	Distributive Education - Section D
Advisory Committee - Section A-1	Office Education - Section E
Steering Committee - Section J	Industrial Education - Section G

As a composite evaluation for each school campus with multiple teaching units by:

Agriculture Teachers - Section F
Homemaking Teachers - Section C
Counselors - Section B
Coordinated Vocational - Academic Education (Vocational Only) - Section H
Health Occupations - Section I

Items may be evaluated as "Yes" or "No" or using the following rating when indicated. When a rating of degree is requested for an item:

Check column 3 if you consider the item extensive and functioning excellently.
Check column 2 if you would consider the item as moderately extensive and functioning well. Adjustments may be suggested.
Check column 1 if you feel this item does not meet minimum standards and needs improvement.
Check column NA (not applicable) if this item does not apply to this program.

Vocational Program Evaluation

Local public schools are required to make evaluations of the quality and effectiveness of programs of vocational education, determining to what extent the program approved to prepare high school students for gainful employment continues to be:

1. Realistic in the light of actual or reliably anticipated opportunities for gainful employment in the area served by the school.

2. Suited to the needs, interests, and ability of students to benefit from the program in which they are enrolled in terms of acquiring the knowledge and skills necessary for entry upon and success in employment in the occupations for which they are trained.

3. Effective regarding the placement and successful employment of students--after completion of the program in which they were enrolled--in the occupation for which they were trained or in closely related occupations. Schools are required to maintain follow-up records on all students enrolled in each program regarding the placement and employment of students, numbers entering college instead of employment, and other follow-up information.

In programs of vocational homemaking education, preparing high school girls to become homemakers, periodic evaluations of the quality and effectiveness of such programs are required to be made by the local public schools.

Evaluation of the quality and effectiveness of each program conducted by a public school is required to be made at least annually, utilizing evaluation instruments approved by the Texas Education Agency.

Members of the staff for Vocational Program Development, Coordination

and Evaluation and of the several vocational program divisions, Texas Education Agency, cooperating with public schools, will make periodic evaluations to determine the quality and effectiveness of the programs.

Administration
Section A

PHILOSOPHY AND OBJECTIVES

Please prepare a brief, concise statement of Philosophy and Objectives.

School Philosophy:

Vocational Objectives:

FOR LOCAL EDUCATIONAL AGENCY (LEA):
For items or statements rated "3," "1," or "no," it will be necessary for you to verify your rating with a written statement under comments.

FOR TEXAS EDUCATION AGENCY (TEA):
For items rated "1" or "no," it will be necessary for you to verify your rating with a written statement under comments.

TEA Use Only	Superintendent	LEA Use Only 3 2 1 NA
_____	1. A well-rounded vocational program is in evidence to include programs for dropouts, the unemployed, upgrading employees, and those in need of retraining.	_____
_____	2. The site, buildings, and classrooms for vocational classes are comparable in appearance and maintenance to other educational sites, buildings and classrooms in the community	_____
_____	3. Administrative officials are aware of and have an understanding of the objectives of vocational education.	Yes No _____
_____	4. Funds are provided and used for operating vocational programs that are effective and of high quality.	_____
_____	5. The administration utilizes in-service educational opportunities for vocational teachers.	_____
_____	6. The school conducts a planned program for self-evaluation of vocational program.	_____

TEA Use Only		LEA Use Only Yes	No
_____	7. A current occupational survey to determine employment opportunities for students enrolled in vocational courses is on file.	_____	
_____	8. The school provides vocational preparation for all the major occupations which are compatable, and in proportion, with occupational employment opportunities as they actually exist in the community or region.	_____	

Comments

Strengths:

Weaknesses:

Administration
Section A

TEA Use Only	Assistant Administrator and/or Supervisor for Vocational Education	LEA Use Only 3 2 1 NA
_____	1. Works closely with business and industry to determine the need for, and the extent of, training for existing employment opportunities.	_____
_____	2. Establishes student admission criteria for each instructional program.	_____
_____	3. Recommends space and equipment for instructional areas to ensure adequate facilities for efficient learning experiences.	_____
		Yes No
_____	4. Develops laboratory and shop instructional programs.	_____
_____	5. Consults with administrator concerning State requirements and procedures.	_____
_____	6. Maintains adequate records in detail for reporting purposes to local administrative and State offices responsible for the financing of the programs.	_____
_____	7. Supervises the counseling, guidance, and testing of students, as well as placement of graduates and maintaing adequate follow-up records on all students.	_____
_____	8. Vocational program offerings, and the number of teachers per program, are compatible with local and/or regional occupational employment opportunities.	_____
_____	9. The selection and depth of vocational program offerings shows evidence that the vocational director has a realistic and unbiased attitude towards all occupational training.	_____

Comments

Strengths:

Weaknesses:

TEA Use Only	Principals	LEA Use Only Yes	No
_____	1. The vocational teachers' daily schedules are in accordance with the State Plan for Vocational Education.		_____
_____	2. The students enrolled in vocational courses are provided opportunities and encouraged to participate in the social and extracurricular activities of the school.		_____
_____	3. The student class load and vocational courses are of such size as to provide for individual instruction.		_____

Comments

Strengths:

Weaknesses:

TEA Use Only	Overall Advisory Committee	LEA Use Only Yes	No
_____	1. The overall advisory committee helps plan the vocational program.		_____
_____	2. The overall advisory committee is composed of equal representation from employers and employee groups and a representative from the general public		_____
_____	3. The overall advisory committee has no administrative authority, but assists the school through recommendations only.		_____

OVERALL ADVISORY COMMITTEE

When a school is conducting several types of vocational programs, an overall advisory committee should be established to advise school officials, teachers, and guidance counselors regarding the total vocational program.

Composition of overall advisory committee:

Name of Members	Organization or Occupation Represented

Name of Current Chairman _____

To what extent has the Advisory Committee been involved in:

TEA Use Only		For Use By Advisory Committee Chairman
		Yes No
_____	1. Encouraging young people and parents to consider vocational education and training through visits to "feeder schools," speeches to civic clubs, career day meetings, and industrial operations.	_____
_____	2. Assisting in establishing the criteria for screening of students applying for admission to the courses.	_____
_____	3. Advise in the selecting of aptitudes and achievement tests.	_____
_____	4. Assisting in placement of students.	_____
_____	5. Assisting in identifying needed vocational courses.	_____
_____	6. Assist in identifying need for redirection of existing vocational courses.	_____

Administration
Section A-1

TEA Use Only			For Use By Advisory Committee Chairman Yes	No
_____	7.	Assist in identifying need for and development of evening program for out-of-school youth and adults.		
_____	8.	Assisting in the selection of equipment and supplies.		
_____	9.	Assisting in the review of course development and content.		
_____	10.	Assisting in establishment of standards of proficiency to be met by students.		
_____	11.	Assisting in the establishing and maintaining of a library of visual aids, magazines, and books concerning industry.		
_____	12.	Assist in the evaluation of vocational programs.		
_____	13.	Providing speakers to address occupational and civic groups concerning the vocational education in the school.		
_____	14.	Providing news stories concerning the school program to local news media.		
_____	15.	Attending meetings in support of vocational and technical education which may be called by local and State school officials, boards, and legislative groups.		
_____	16.	Participating in radio and television programs designed to inform the public about vocational education.		
_____	17.	Assist in professional development of teachers.		
_____	18.	Assist in evaluation of teacher qualifications.		
_____	19.	Providing awards and praises to outstanding teachers.		
_____	20.	Arranging for resource instructors from business and industry to assist vocational teachers.		

Chapter XIV-D

"Evaluating Planning Programs Selected for Implementation"
C. O. Neel, Kentucky State Department of Education, Division of Vocational, Technical and Adult Education, Frankfort, Kentucky

You have just heard what many of you think about evaluation.

Since the dawn of time man has been trying to determine just exactly what evaluation is, whether he be the caveman or the most modern man today.

It might be said that evaluation is an abstraction which cannot have real existence independently. It is a sub-concept of management, and is dependent upon the existence of some form of management, that is, some organized arrangement for the making of dicisions leading to action--for the channeling of resources, ideas, and influence toward some specified targets or outcomes.

Evaluation produces information; information is the basis for planning; planning prepares the way for the making of realistic decision; decisions are the signals to execute a course of action, or program. Analysis of the program and its results constitutes evaluation.

Evaluation may be defined as that class of management behaviors concerned with determining (1) how faithfully a program is being executed, (2) how effectively and efficiently the program's objectives are being accomplished, and (3) how relevant or significant the program's objectives are. Evaluation is an indispensible element in the management of any program, whether the program is highly specific and narrowly defined, or broadly defined and composed of diverse but related components.

As a part of total management behavior, evaluation of a program is primarily the responsibility of the person(s) who manages the program. Thus the primary purpose of evaluation is to generate reliable and relevant information which the program manager will use to plan immediate and future operations of the program; that is, to make action decisions about how to proceed with the program both in the present and in the future.

One of the things we try to do is to evaluate or determine just where we stand in relation to our environments. We have attempted in education, particularly in vocational education, to determine where we stand in terms of preparing people to assume a productive role in our society.

In this we have two things that we might look at in terms of evaluating whether or not any particular task is being done. One is subjective, the fact that you can observe and tell whether or not something has been done as it should have been done. The second way would be the objective

or hard data. Suppose this was the outcome of the task that was desired. In doing this though, we look at many different criteria to find out whether or not we have the data available. First of all we look to see if the data we need for evaluation is obtainable.

The data that was presented then or sent back was available and it was obtainable. Will we reach our next question? Is it relevant? Was it relevant to the thing that was trying to be accomplished to start with? Is it relevant to what we are trying to have happen in the particular activities or projects that we have started? Was it systematically obtained? Was it understandable? And lastly, is it within the time frame? Is it timely? Is it something which we can use now? Upon what basis are these persons going to have to make decisions and why?

With these ideas in mind, the thing that we need to do now is look at focusing evaluation. We must make sure that the evaluation is focused toward the objective that we want to attain. We need to identify the level in which this evaluation is going to be carried out. What kind of project decisions are going to have to be carried out in doing this evaluation? What decisions will have to be made? What kind of criteria are we going to use to find out whether or not this objective that we have proposed to achieve has been met according to the evaluation? We would have to define our standards and determine whether or not these standards would fit in with the criteria, the decisions and levels on which we are going to focus our evaluation.

Therefore, as we get ready to focus our evaluation we see that decisions are made in evaluation related to standards and activities or tasks. The standards that we have set up are the objectives we are trying to achieve and the activities which we are using to meet those objectives. How are we moving from where we are now to where we should be and determining what is and what should be? And as we go through these, we have to make certain decisions. And as we look at this there may be modifications that must be made in our plan as we move toward a goal. These modifications will be based upon decisions made because of the process of evaluation.

To try to sum up everything that we have talked about today, I should like us to look for a moment at evaluation, product and process. Many times we have talked about evaluation in terms of a product only. We wait until everything is over to try to see whether or not what has come out has been good. If it has, then we say well our evaluation shows that everything has been good. But true evaluation, whether it be the product or the process, can only be based on what it was that you set out to do. It's very easy sometimes to go through an entire process or project without ever knowing once what the outcomes of that product or process might be. But if we do this, then we're not doing evaluation. We're looking only in terms of what can we find, put our names on, or what we might congratulate ourselves about. In evaluation of process, if we have preplanned and know what our outcomes are to be, then we should have also preplanned and know what the steps were that would take us to this particular goal. So in looking at the process

that we have gone through we should be able to evaluate all points as to whether or not the process is doing what it originally intended to do. We can evaluate both the product and process then in terms of three things: (1) Effectiveness--was this done in the way that was most effective? And I believe we could extend this effectiveness into both product and process. Was our process effective in producing the product we so desired? Was our product what it was intended to be in giving these persons, particularly in vocational education, a job from which they could earn a livelihood for the rest of their lives? (2) A method of evaluation based upon either personal experience or some techniques that we might have used in determining whether or not things were occurring as they should. (3) Evaluation by individuals, or by instruments, or by various mechanical tools.

Chapter XV

"Current Status of Research Corporations of the Association of School Business Official's National PPBES Project"

William H. Curtis, Research Project Director
Research Corporation, Chicago, Illinois

The major responsibility of ASBO's part of the project is a survey and analysis of information activities across the nation; development of a conceptual design for program planning-budgeting-evaluation for local school systems; and publication and dissemination of project results among local school systems.

Some Major Problems Being Encountered

a. A review of some of the problems being encountered structurewise

   1. Much is being done in the name of program budgeting, but little, as yet, in a true PPBES approach.

   2. Program Planning (or planning and Programming) and Evaluation Assessment) are being Neglected

   3. There is still a tendency to relate too closely to the current function-object, line-item approach.

   4. Semantics (Definitions) still are and probably will continue to be a problem for quite a while.

b. The problem of keeping the focus on the learner and what takes place in the classroom--ie., the importance of keeping the instructional process first and foremost in the development of the design.

c. The Pressures

   1. To bring forth a PPBES design now, not two years hence.

   2. To release information prior to the time when consensus is reached on major issues in the developmental process.

   3. To produce pat answers re: All segments of the process.
   Note: Here again, we see a lack of concern for Adequate Planning in the developmental process of a very complex design.

d. The failure, still, on the part of so many leaders in the field of education to realize and accept what is taking place. At the present it would appear that more of the reticence is among superintendents and state administrators rather than school Business officials. The apprehension on the part of many is probably due to a lack of knowledge.

e. There seems to be a fear on the part of some educators that this new process will unveil too many weaknesses in their administrative patterns.

f. The problem of just plain everyday resistance to change.

g. The lack of coordination between the various projects.

The fact that U.S.O.E. policy does not provide for such and so it becomes the responsibility of the various directors to accomplish coordination and communication on an informal basis.

Note: This is not an easy procedure with 6 to 8 major projects and an estimated 75 to 100 minor ones around the country.

h. The almost insolvable problem of satisfying each of the 50 states.

1. The variance in the state laws and the reporting processes.

2. The great variance in state support programs and state formulas.

3. The varying degrees of fiscal independence and dependence.

4. The varying sizes and characteristics of the various school districts along with their wide range of educational needs and problems of all kinds.

Some Areas of Consensus to Date

a. That there is a great need to develop a design (or designs) suitable for all, i.e., for small, medium and large districts; for the less affluent versus the average versus the affluent.

b. Planning--That there is a great need to indoctrinate everyone with the importance of reaching agreement upon basic goals and objectives to be achieved, coupled with effective long-range planning.

Great importance was attached to the early involvement of members of the professional staff in the planning process, especially teachers. Also stressed was the need for gaining early support of the teacher organizations as it might relate to the overall design but particularly to planning.

Many times in the feedback: there was re-emphasis of the importance of total involvement including students and members of the constituency outside of the professional staff. Great importance was attached to the involvement of middle management and there was re-emphasis upon the fact that overall management of education is no longer a unilateral process.

There was emphasis upon the importance of the early identification of the needs and problems of a district, the need to take an inventory of existing conditions and then to take a hard look at the future.

Mentioned also as part of this segment of planning was the need for developing greater skills in writing objectives and being able to relate such to programs with a considerable amount of emphasis on target groups.

The thought was expressed that the document should offer suggestions as to how a school system might organize for and go about the planning process. Stress was placed upon the idea that the proposed involvement of people in the planning process should be developed in a strong, meaningful manner.

c. Evaluation--Continuous concern was expressed regarding the apparent lack of sophistication in this particular field to date as well as the question of the suitability of certain types of evaluation for a design such as ours. Some of the concern related to the essential reconciliation between effective usage of resources and established objectives.

Included under this item was a concern regarding the lack of sophistication in the teacher evaluation process.

There seemed to be almost complete consensus that the overall component of evaluation would be the most difficult to handle.

The idea that some phases of the evaluative procedure should be subjective as well as objective was emphasized. Stress was placed upon the importance of the teachers' position of leadership which the teacher can play in the evaluative process especially in keeping focus on the learner.

That there should be continuous evaluative procedures, both in terms of long-range and short-range goals and objectives.

That provision should be made for some kind of an evaluation procedure for the design itself.

d. In-Service Education--Stress was placed upon the importance of the state departments of education, the institutions of higher learning and the professional organizations assuming much greater responsibilities in providing leadership and resources (especially human resources) in designing, developing and implementing the various types of in-service education programs which will be needed in relation to this new approach to the decision-making process.

That there will be the need for great involvement of curriculum personnel both from the standpoint of leadership as well as the development of a much closer working relationship with other members of the professional staff.

Coupled with this idea was the thought that too much responsibility has been placed upon the business official for the application of this concept and nowhere near enough upon the curriculum specialist.

e. That there is a need for early and strong support by the superintendent of schools and the Board of Education.

f. It is most important to have prepared and distributed at an early date a glossary which hopefully will have a high degree of commonality with the efforts being undertaken by other groups in the country as well as our own.

g. That there is a need for a school district to start designing, developing and implementing ERMD in a modest way and not try to do the overall assignment all at once. Coupled with this idea is the agreement that an individual school district will need a parallel system of operation as it proceeds through the transition process.

h. Although we have many expressions of specific support of our design in general, there has been, and rightfully so, the expression that we still need to "put much more in the way of meat on the bones." Included as part of this thought is the need to involve outside expertise.

i. There is strong support for the consideration of a design which places greater emphasis upon resource management and allocation rather than utilization of the earlier industrial-business-defense PPB principle and application. It has been suggested that we might consider extension of the design so that it will be all-encompassing from the management by objectives and management by resources principle. Also, it has been suggested that inclusion of some of these thoughts in the scheme would be highly desirable.

j. There has been emphasis upon the great need to include examples of how to carry out the implementation process for all components and subcomponents.

Coupled with this has been the thought that examples of cost-benefit analysis as applied to education would be of great value as well as suggestions for handling alternatives and priorities.

c. Planning

1. The relationship of long-range planning to policy determination

2. School-community cooperation in the determination of objectives

3. The relationship of planning to programming to budgeting to evaluating.

d. Strategy Determination - Analysis of Alternatives

1. Examining the potentials

2. Structuring for effectiveness

e. Resource Allocation

1. Development and use of data banks

2. Accommodating the various types of school systems.

f. Evaluating

1. The need to estaolish and maintain continuous linkage with planning and programming

2. Approaches to the problem

3. Development of patterns for evaluating

g. Organizing for implementation

1. Identifying and allocating the resources available to the school system

2. Identifying and dealing with problems arising as a result of change, reorganization and implementation

3. The need for extensive in-service education

a. The responsibility for such rests in many places, i.e., the institutions of higher learning, the professional organizations, the state departments of education, the boards of education, etc.

h. Intra-state and Inter-state Problems

1. Varying degrees of compatibility of data (for state and federal policy making)

2. Variables in fiscal dependence

3. Variations in resources

4. Constraints of existing laws

Educational Resource Management Design - PPBES in Education

a. Introduction

1. A look at the impact of today's society upon education
2. Changing patterns of influence
3. Establishing the climate for change
4. Anticipated impact of forces of change
   a. Desirable
   b. Undesirable
5. The future governance of education

b. Conceptualization of the Educational Resource Management Design

1. A rationale for the Design
2. The relationship of the school and society
3. The interrelationship of the major parts of the Design, i.e.,
   a. Planning
   b. Programming
   c. Budgeting
   d. Evaluating
4. Elaboration of the design
   1. Events
   2. Supporting activities
5. Summary

NOTE: the schematics will form an integral part of Section E.

5. Local, state and federal policies

6. Variation in characteristics and requirements of school districts

7. Relationships of the educational and political establishments

8. Maintaining a desirable balance between federal, state and local authority

i. Implications

1. Implied need for further study and development

2. Implied need for change in the basic preparation of educators

3. Re-emphasis upon in-service education

Some Observations and Conclusions for all Three Presentations

a. It is our opinion that this new approach should result in a more objective look at what we are trying to do in education, how well we have done it, or are doing it, and finally, how to go about the process of creating change and improvement.

b. Obviously, it should result in better long-range planning, better involvement (staff, student, community) and therefore more effective use of resources.

c. This new approach to the decision making process should help to build greater support and confidence in our school systems on the part of the public.

d. The design (designs) when completed and refined must provide an overall pattern (or patterns) for school districts of varying sizes and characteristics and must give them "room in which to move."

e. Emphasize the importance of developing massive inservice programs in this new approach so that staff involvement will be more effective. Stress the important role which administration at all levels must play in giving leadership to, participating in, and encouraging staff members to participate in various types of in-service programs.

f. Remember--It is rapidly becoming accepted that the sound approach to the budgetary process of the future will be based upon some sort of design involving effective identification and use of resources, establishment of desired goals and objectives, careful program planning, development of alternate patterns for the decision making process, more sophisticated methods of allocation and accounting and finally an evaluation program to determine accomplishments in terms of established goals and objectives.

Hopefully, the aforementioned statements and illustrations especially will help to place effective planning in proper perspective in this new approach to the decision making process. In my opinion, without adequate long-range planning, a school system and especially its Board of Education and its administration are lending support to the "status quo." The great demand for broadening the scope (by most) of our educational programs; the pressures of the negotiative procedure with its greater demands of all types; the impact of new ideas and the new technology; the greater burdens upon school systems toward solving our great social problems and the greater competition for the tax dollar, all suggest the need for the development of a design which will require much better long-range planning and much more effective allocation and use of resources.

Such a design seems feasible through the application of the planning-programming-budgeting-evaluation systems principle.

Chapter XVI

"Current Status of P.P.B.E.S. Project in Douglas County Colorado"
Lowell Baumunk, Superintendent of Douglas County Schools
Castle Rock, Colorado

Douglas County School District is a rural-suburban area lying between Denver and Colorado Springs on the east base of the Rocky Mountains. The total enrollment is 2,428 pupils in grades one through twelve. We cover approximately nine hundred square miles, and the county boundaries are nearly identical with those of the district.

We operate one senior high school, one junior high school, and six elementary schools. The senior high currently has an enrollment of 550 in three grades, the junior high is 670, and the elementaries vary from a three-track system in the headquarters town of Castle Rock to a two teacher rural building with a total enrollment of thirty.

Service functions loom large in our district. We transport 95% of all pupils, operating 41 bus routes and eight activity runs. We own 52 vehicles and have our own bus maintenance operation. School lunch is served to nearly every pupil.

Douglas County is a comparatively simple district from an administrative point of view. We have very few specialists and no one who could be classified as a supervisor or coordinator. The high school has been principally college prep oriented, with some vocational and pre-vocational offerings.

From an accounting point of view we own no computers and no bookkeeping machines.

We do not have program budgeting, and I am certainly not an authority in the field. Dr. Curtis, who just preceded me on this program is the authority: I feel certain that he is as well or better informed on the subject as anyone in the United States. He is a hard act to follow.

When the national project, sponsored by the Association of School Business Officials in partnership with Dade County, decided to add pilot districts, there were many in the country who were eager to be included. Many fine districts with some degree of sophistication could demonstrate progress toward some or several phases of program budgeting. Examples are Memphis, Milwaukee, Peoria, and Montgomery County, Maryland. After seven of these were selected, however, it became apparent that there was a need for a small district to give feedback on the potential programs which could be encountered at that level. We were chosen, then, precisely for the opposite reason that the other seven pilot districts were selected.

Except for having read a couple of magazine articles on the subject, I was completely uninformed, and not particularly interested. It appeared to be something that we might be forced to try after other districts had worked out the problems.

When our school board agreed with me that it would be desirable to participate as a pilot district, we made three basic commitments:

1. That we had little to offer except my time, which would be made available to the greatest possible extent.

2. That we would give feedback to the project designers on the basis of what would and would not be feasible from the point of view of school districts our size and smaller.

3. That our district would attempt to implement the national model in several or all phases of our schools, and would give feedback on our successes and failures.

We have been in the project just over a year. My function here is to report to you some of the facts I have learned, some of the opinions I have formed, and to give you an outline of the steps we are taking toward eventual implementation and carrying out our share of the agreement.

One basic observation is that it is not all bad to be uninformed and unsophisticated. We did not have to unlearn many preconceived notions; we did not have to alter or reverse our philosophy. In addition, learning is easier when you start with the basics. Few districts in the country have learned as much in twelve months on any subject as we have on P.P.B.E.S.

As Dr. Curtis has told you, Program Planning Budgeting Evaluating Systems in Education, or Educational Resources Management Design, is much different than the implications in industry or in government agencies. For these people the process is basically one of accounting; in education it is one of improving the decision making process. Its ultimate aim is to give us a much clearer picture, a much sounder framework with which to set priorities. This word "priorities" is the name of the game. Since there appears to be a continual shortage of educational resources, how can we make most effective use of those available? Which programs should we add, which should we drop, and how can we modify present programs to improve effectiveness and efficiency? For all these questions we had better have sound reasoning, we will need to be able to defend, and we had better be prepared to prove. P.P.B.E.S. offers help in these areas.

Another thing that we learned early is that implementation of new ideas requires time--time and patience. New ideas threaten people; they are much more comfortable in traditional patterns. Teachers and administrators are frequently inert, and some of the five principals in our district have demonstrated less than an enthusiastic response to the changes that will be required.

In a project of this magnitude and with the eventual nationwide dissemination, the glossary, vocabulary, and definition of terms becomes a major project in itself. There are experts working in this field, and they will agree upon some standards. But let me say a few words on the term "program."

I am a staunch advocate of local control. I believe in local boards of education, and in responsiveness to local needs. I have always had a positive and friendly relationship with the State Department of Education; they have much service to offer, especially to a small district. But I hope the day of state operated schools is far away. I want our district, with proper reference to resource personnel, to determine its own programs, and to develop its own processes for implementation. "Program" then, is a word that I hope always has a local definition. I may want to talk about our first grade program, or about our math program, meaning mathematics in grades one through twelve, or about our fourth grade mathematics program as it applies to all fourth grades in the district, or about our fourth grade math program in the Washington School. The latest information that I have is that Dade County is using the term "program" on a grade level basis in the elementary schools and on a subject matter basis at the secondary level. You and I should be free to set up those "programs" which are easily identified and handled in our own systems.

We decided in ourdistrict that the first step in changing our traditional processes was to break away from the year-to-year thinking pattern that had been in existence. We want a longer range plan, and decided to try for five years, with the idea that there would be a continuous modification process which would result in a new five year plan annually. We decided that a small district, at least our district, did not have the personnel or the time to accomplish this type of service on its own. We therefore contracted with the Bureau of Educational Research of the University of Denver to help us, and we gave them some specific instructions.

They are to help us do these things:

1. Determine the educational needs of the pupils and the community. To get these answers, they will have the resources of a board-appointed citizens' committee, and will use pupil and adult questionnaires. In addition, they will have random conferences with faculty members.

2. Using the same groups, we will set up goals for the district to work toward. These are expected to be general philosophical statements.

3. Working with board, administration, faculty, and perhaps some students we will set up specific, measureable objectives.

4. We will examine our present programs to determine whether they meet these objectives. Each program will be evaluated, and is subject to being kept, discarded, or revised.

5. We will work with faculty and principals, and probably with

some outside specialists, in designing programs and sub-programs to meet our stated objectives.

6. We will cost out each program, evaluate it on a priority basis, and implement it or develop alternate programs which are within the reach of our resources.

7. We will run a continuous check on the progress of the program to see that it is taking us toward our stated goals and objectives. With continuously new information available, we may want to alter the program, or we may even want to change our objectives.

These are not new to the educational world, and not to your district, but they are organized and systematized, and hopefully will give us a concrete basis for discussing schools and school finance with legislators and the public.

You have noticed that I have continuously referred to what we "will" do. That is the only term I can use, since we are just getting started. Any of these processes are subject to review and change as we progress. It is my opinion that we are talking of possibly three years in the total process, and even then it must be continuous. But in order to get some quicker answers, we are starting five other steps which may be of interest:

1. Effective January 1, 1970, we stopped writing checks and warrents, and keeping books, at least in the traditional sense. After some lengthy investigation, we have decided that these functions can be contracted for by a small district cheaper and more effectively than they can be performed by hand. We are certain that information retrieval will be enhanced many fold. In a year, or possibly much less, we should be able to make a report on the benefits and disadvantages of this change.

2. One of the deficiencies in our district is a lack of kindergartens. We are starting to program out this addition so that a decision can be made on the possible addition in terms of cost effectiveness. This process will be concluded within the next three months.

3. Because our district is growing, we need a bond election for a building program. We are starting to design new buildings on the basis of our goals, objectives, enrollment projections, and especially on our view of possible instructional programs which will occur within these structures. We hope we will find it easier to communicate with the voters in this language.

4. We have been dissatisfied with mathematics learning at all levels. We have already agreed on needed changes at the principal level, and have a faculty committee designing sub-programs to meet stated objectives.

5. Special education is a relatively new program in our district. We think it will lend itself well to setting up a model following the national model design. We expect to be ready to fully implement this program by the fall of 1971.

We are constantly faced with evidence that nothing will be accomplished without general acceptance. This points up the need for massive in-service education and an improved public information program. Teacher and pupil and citizen involvement needs to be expanded, and techniques for using these groups effectively need to be developed. There is also a great need for improved measurement instruments so that we can evaluate our successes and failures more objectively.

You people are here to discuss vocational education, and I am certain that much enthusiasm has been generated. What is the priority of vocational education in your district? What are the objectives you expect to attain? How does an objective examination of your success justify your enthusiasm? What are the benefits in relation to the costs? How do the costs per pupil or per pupil hour or per pupil minute compare with other subjects and activities for which your district allocates its resources? If your board of education had this information available, how would distributive education, for example, come out if placed in competition with French III, with chemistry, with English, with pupil transportation, or with football? We may soon have to answer this type of question, and I believe P.P.B.E.S. can help reach the right decisions.

Chapter XVII

"Current Status of P.P.B.E.S in Dade County, Florida"
Jack Whitsett and Fred Schollmeyer, Directors of Dade County P.P.B.E.S. Project

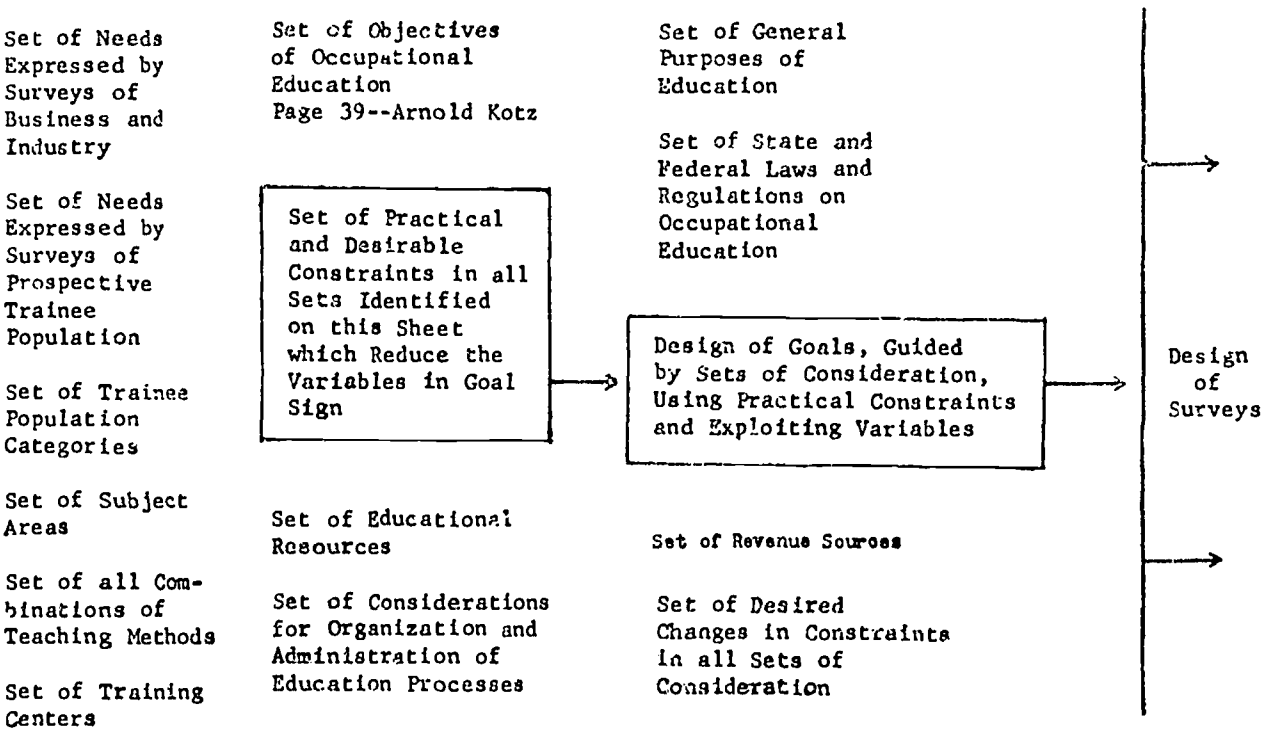
AN APPROACH TO PLANNING, PROGRAMING, BUDGETING, AND EVALUATION FOR VOCATIONAL, TECHNICAL, AND ADULT EDUCATION

The Superintendent wants a Program Planning and Budgeting System (PPBS) for the Division of Vocational, Technical, and General Adult Education at the earliest practical date.

SO....

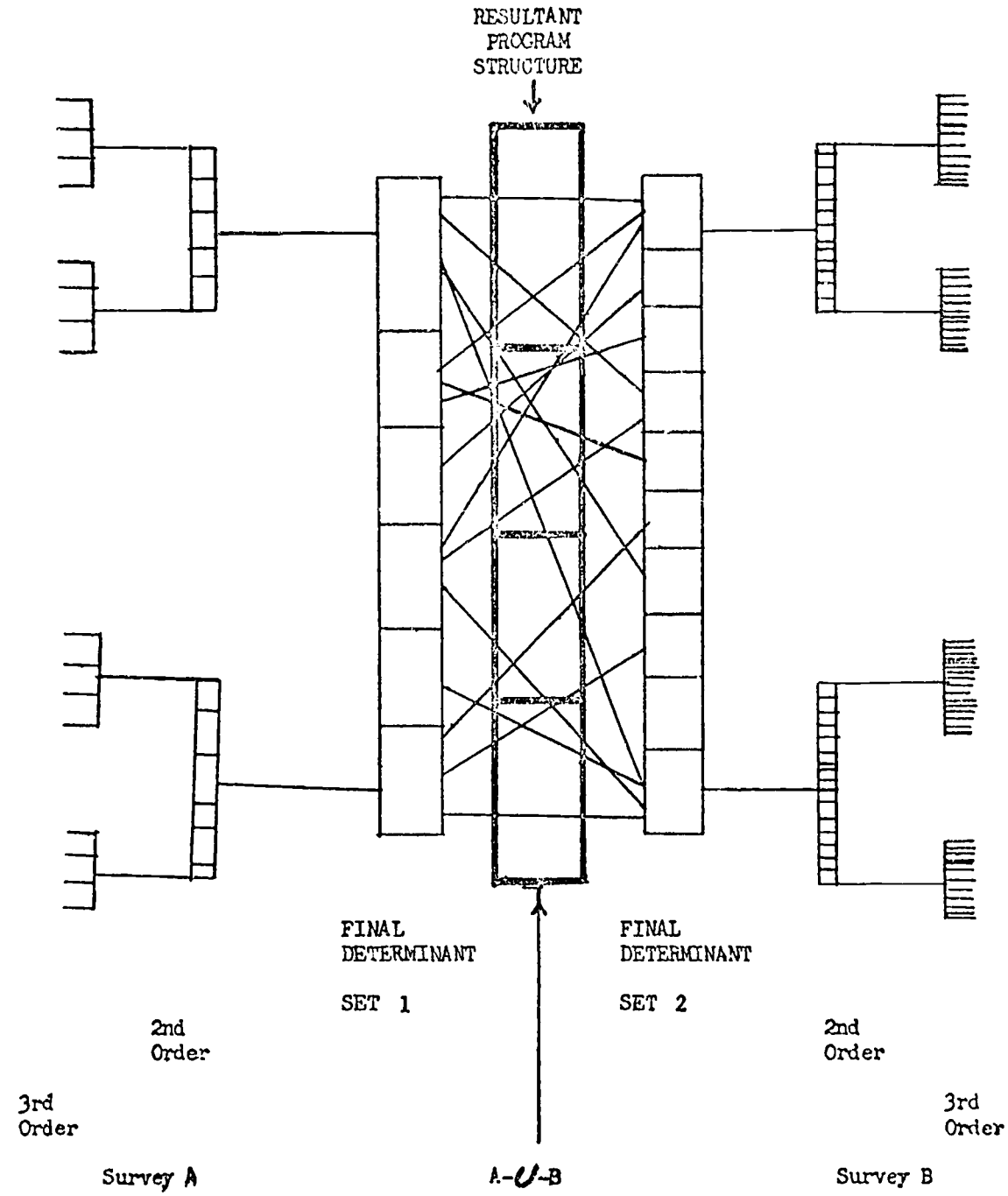
we decided on a design mode which relies on some basic set theory techniques to develop information about our present system in education.

SOME SETS OF CONSIDERATIONS IN OCCUPATIONAL EDUCATION
GOAL DESIGN



From this we constructed two sets of final determinants. These will give guidance to the design of two surveys. One survey will be on individual needs for occupational education among our county population. The other will be on the needs of business, industry, and other agencies for trained employees in terms of specific skills. The results of these surveys will be matched to identify and plan our future programs. See figure below.

PROGRAM STRUCTURE DESIGN USING SOME BASIC INFORMATION THEORY



WE NOW HAVE TWO SETS OF FINAL DETERMINANTS....

AND SO....

Here are the titles tentatively selected for our program structure.

VOCATIONAL, TECHNICAL AND ADULT EDUCATION
(Tentative)
Program Structure

A. Adult General Education Program

A-1 Adult Elementary

A-2 Adult High School

B. Employment Training Program

B-1 Apprenticeship Training

B-2 Disadvantaged

B-3 Preparatory In-School Youth Training

B-4 Supplemental Training

B-5 Adult Preparatory Training

C. Special Interest Education

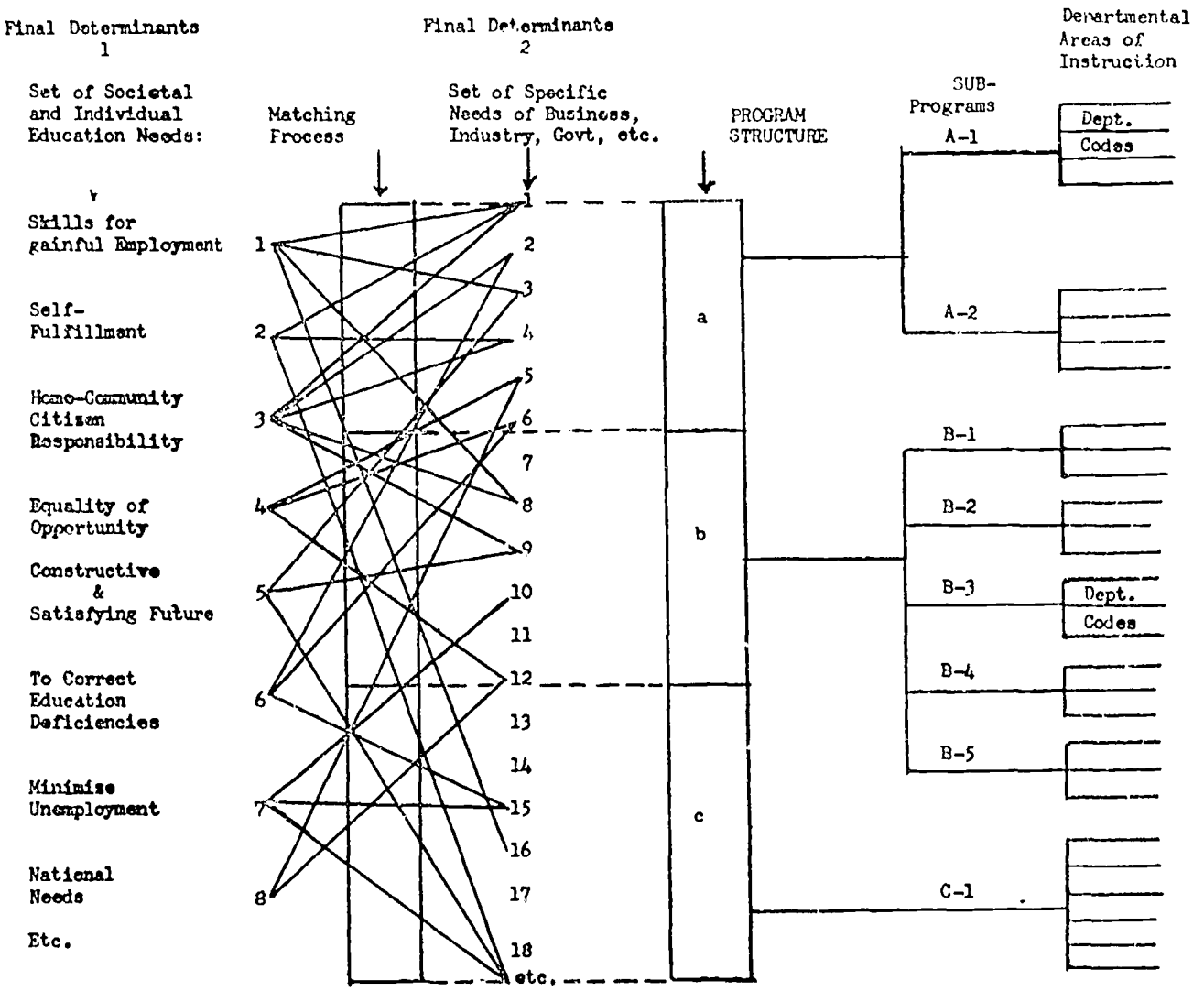
C-1 General Adult Special Interest

C-2 Home Economics Special Interest

TRAINING DEPARTMENTS PLAN AND SUPERVISE OUR PROGRAMS....

This program structure, with its final determinant sets, provides guidance for Training Departments in establishing behavioral goals and courses of ir. t[illegible]on.

PROGRAM STRUCTURE AND DEPARTMENTAL PLANNING



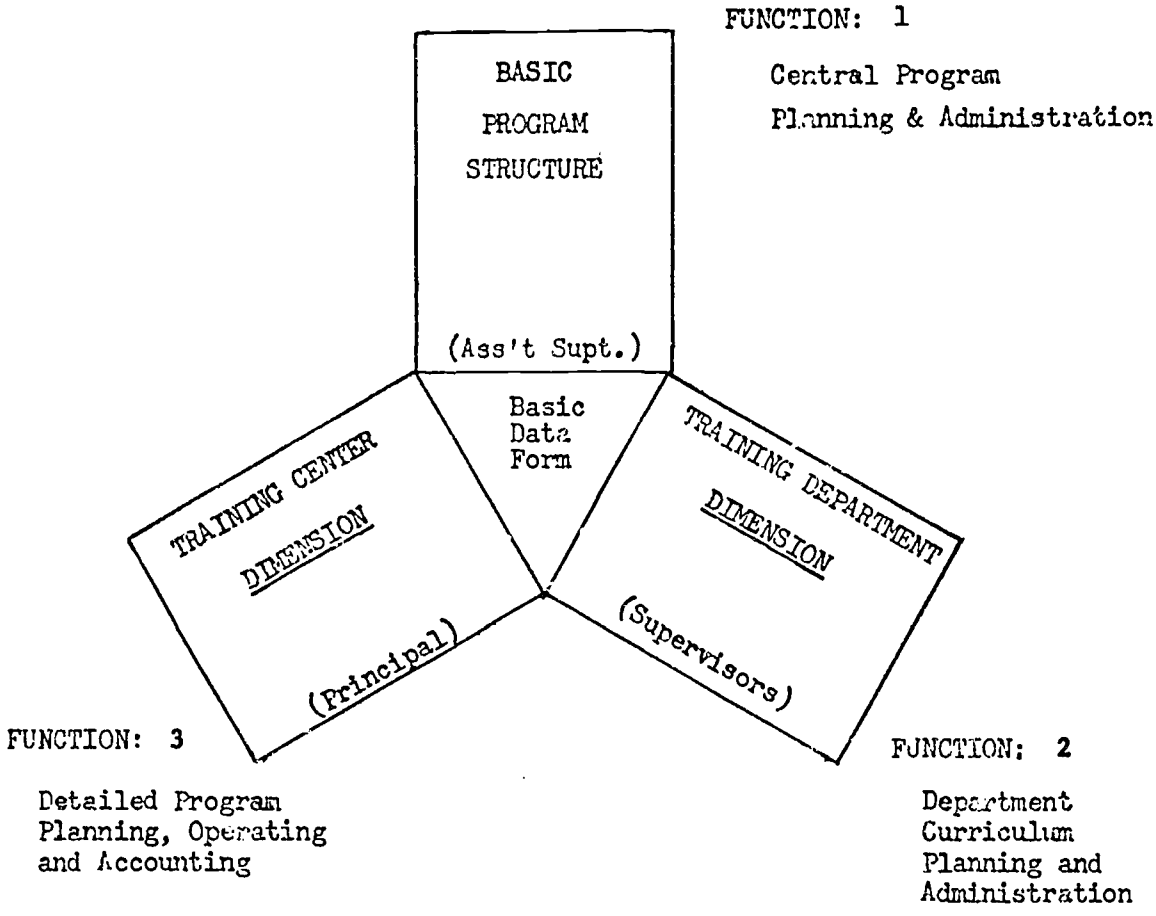
HERE ARE THE DEPARTMENTS....

TRAINING DEPARTMENTS

1. Adult Education
2. Agriculture
3. Distributive Education
4. Home Economics Education
5. Office Education
6. Technical and Health Education
7. Trade and Industrial Education

WHAT IS THE INTERACTION BETWEEN DEPARTMENT AND TRAINING CENTERS....

INTERACTION DIAGRAM



1. Central Program planning and administration includes instructional Research, Development and Evaluation. This in turn feeds inputs to the Training Department Curriculum Planning and Administration, including survey data analysis.

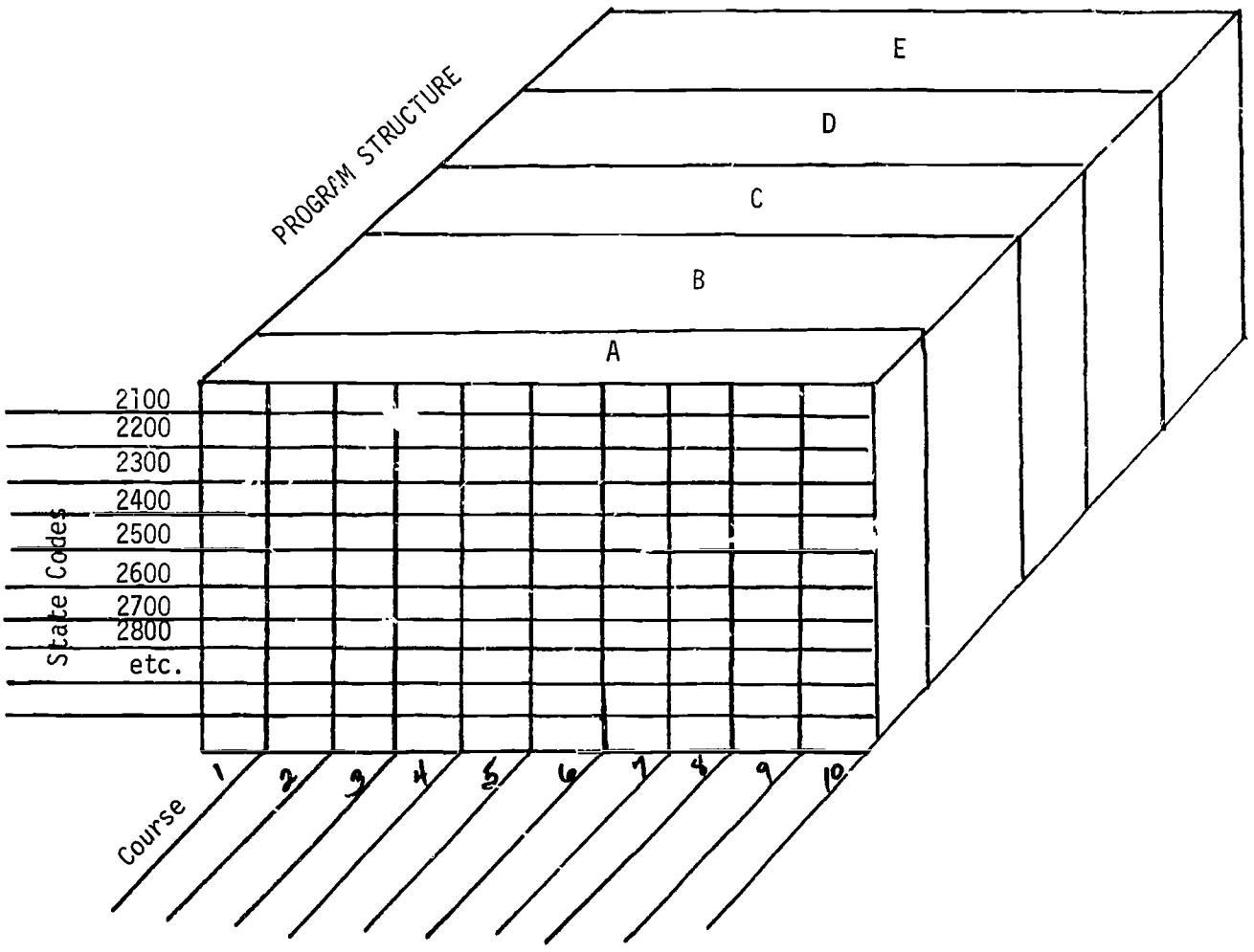
2. Coded Curriculum Plans in complete detail are prepared by the Training Departments. Details will include alternative instructional methods and media for the various detailed courses. All plans, methods and media are coded and provided to training center planners.

3. Training center planners plan their programs and budgets by selecting from alternative detail plans provided by Training Departments. Courses with training methods are identified in training center budgets, coded with Training Department codes and multiple-coded with other dimensions identified for translation of the program plan and budget for display and analysis. School system accounting data also originates in training centers as the result of the actual expenditures of instructional resources.

BASIC PROGRAM

DATA FORM

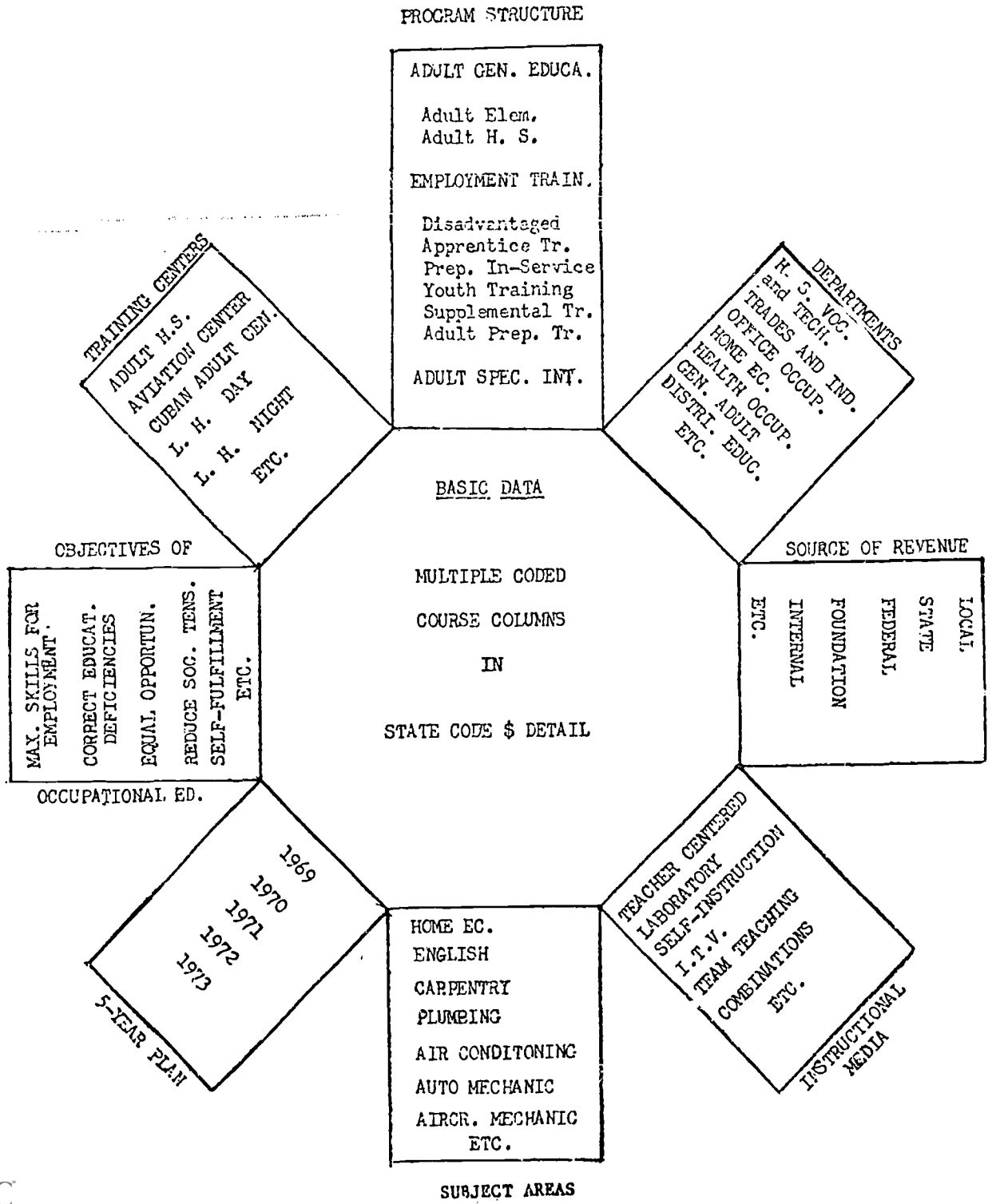
Training center plans will be arranged in colums by courses bearing Training Department codes. Costs will be applied to people and things required to conduct the courses. Center overhead and central system overhead costs will be prorated to the course cost columns. The summation of all course cost columns equals the total system budget. This is the basic data form.



TRAINING CENTER

TRANSLATION OF BASIC PROGRAM DATA INTO VARIOUS DIMENSIONS

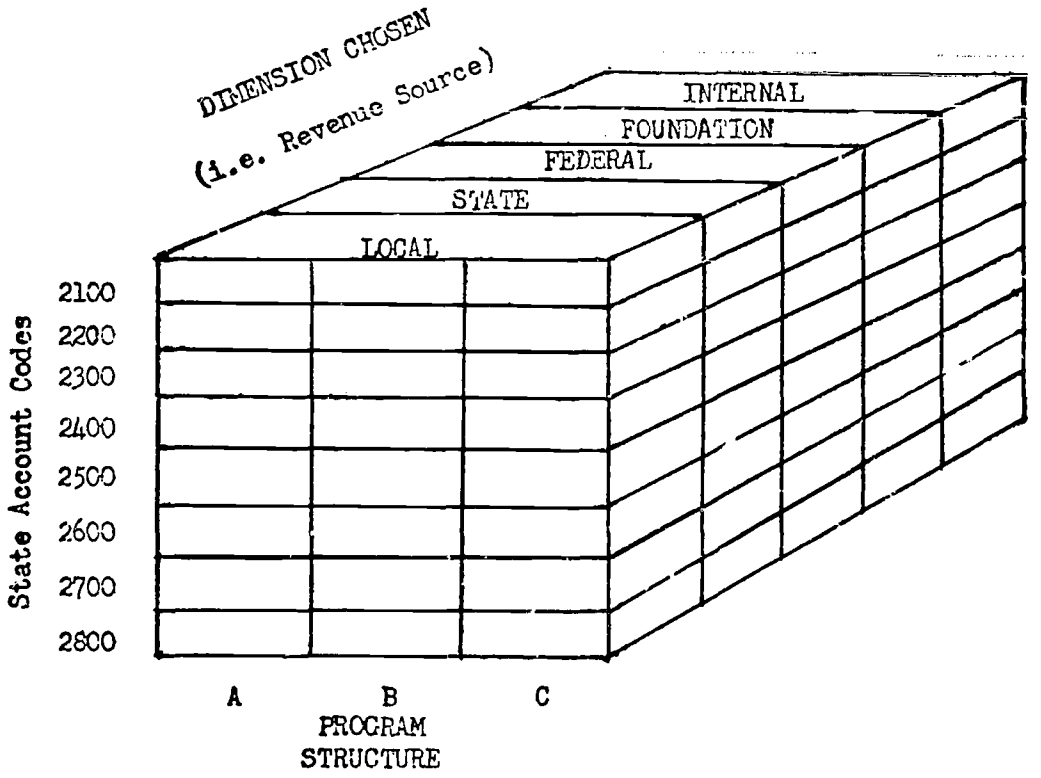
The basic data can be translated by the computer into various dimensions of the program budget selected for analysis.



PROGRAM ANALYSIS DIMENSION

The program plan and budget may be analyzed in various dimensions. The dimensions chosen will be coded. Course columns in the basic data structure will be multiple-coded to correspond with dimensions in which they are identified and planned.

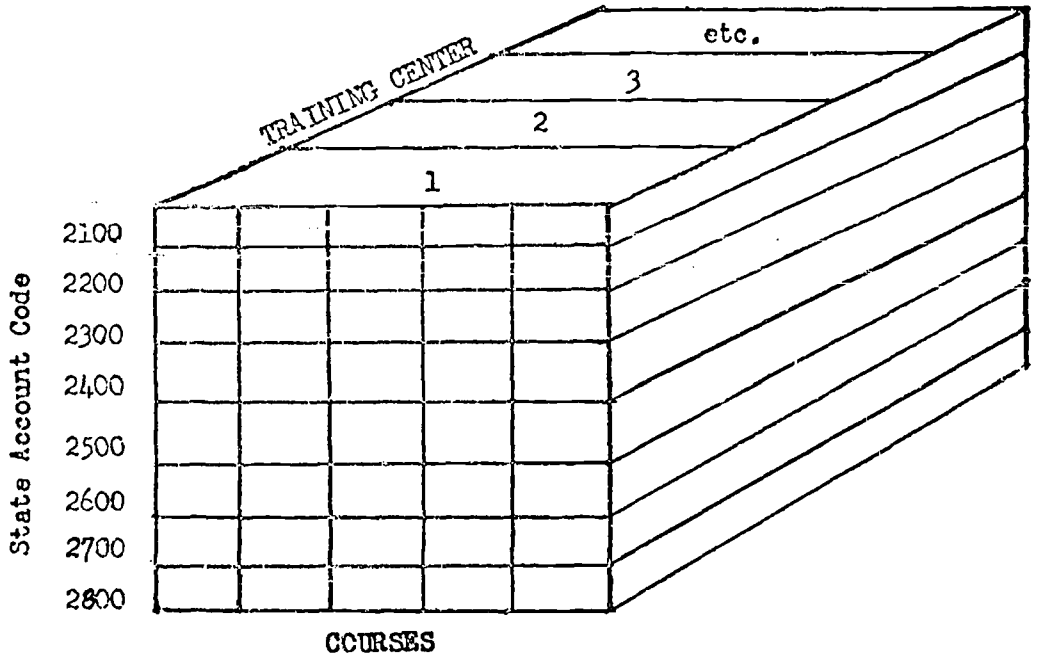
Each dimension can be analyzed in terms of the Program Structure, and state account code cost classes as follows:



THIS CAN BE DONE IN ANY DIMENSION CHOSEN....

PERMUTATIONS OF THE VARIOUS DIMENSIONS

It is also desirable to cross-relate the analyses between any two chosen dimensions:



PRESENTATION OF THE BUDGET

The following page is an excerpt from one of our center budgets. It shows how course costs are analyzed in columns. These columns are multiple coded and translated into the analytical dimension chosen.

Five-year plans are also based on variations of this data form-using price trends in the various categories of resources to project the costs.

Course Listing of Lindsey Hopkins Ed. Center (Day)

DESCRIPTION	CODE	PRACT.NURS061V	A/CREFHEAT901V	COMMER.ADV918V	DFTMACHMAR925V	DRFT.ARCHI925
Teachers Full Time	2215.30	95800.00	17900.00	7440.00	11850.00	7400.00
Teachers Hourly	2215.33	2835.00	.00	.00	.00	.00
Other Non-MFP Instructional	2216.2	.00	.00	.00	.00	.00
Secretaries and Clerks	2222.0	.00	.00	.00	.00	.00
Textbooks	2230.0	2200.00	22.15	.00	12.20	.00
AudioVisual Supplies	2241.0	86.77	83.00	.00	.00	.00
Periodicals and Newspapers	2242.0	.00	.00	.00	.00	.00
General Instructional Supplies	2251.00	700.00	.00	715.17	.00	.00
Specific Instructional Supplies	2251.05	250.00	.00	.00	240.19	232.44
Printing	2262.0	.00	.00	.00	.00	.00
Msc. Supplies	2263.0	.00	.00	.00	.00	.00
All Other Contracted Services	2271.00	.00	.00	.00	.00	.00
Supplies, Plant Operation	2350.00	.00	.00	.00	.00	.00
Contracted Services, Maintenance	2420.00	.00	.00	.00	.00	.00
Public Carriers, Aux. Service Contr.	2512.00	.00	.00	.00	.00	.00
Other Fixed Charges	2660.10	.00	.00	.00	.00	.00
Instru. Equipment	2844.0	247.90	810.02	41.77	107.94	.00
Professional Services	2844.01	.00	.00	.00	.00	.00
Replacement Equipment	2854.0	590.00	127.95	5.00	77.25	.00
Library Books	2860.0	.00	.00	.00	.00	.00
AudioVisual Material	2870.0	287.86	139.91	.00	67.50	.00
Instructional Cost		102997.13	19082.03	8201.94	12355.08	8132.44
Support Cost		22016.00	6324.00	4372.00	2461.00	2117.00
Total Cost		125013.13	25404.03	12573.94	14816.08	10249.44
Percent		1.89	.38	.19	.22	.15
Student Hours		110667.00	31758.00	21974.00	12337.00	10403.00
Cost Per Student Hour		1.12	.79	.57	1.20	.96

EVALUATION

Our evaluation design will produce effectiveness ratings in each of the resource categories for which a cost figure is shown. These effectiveness ratings will indicate the quality of performance in each of the resources used in each course.

The performance quality can be effected by the funding level or by management of the various resourses. Therefore the evaluation will provide information on areas in which improvements can be made to improve the quality of our training.

You will also notice that student placement and some other non-budget items will be added to our evaluation, so that the whole process is covered.

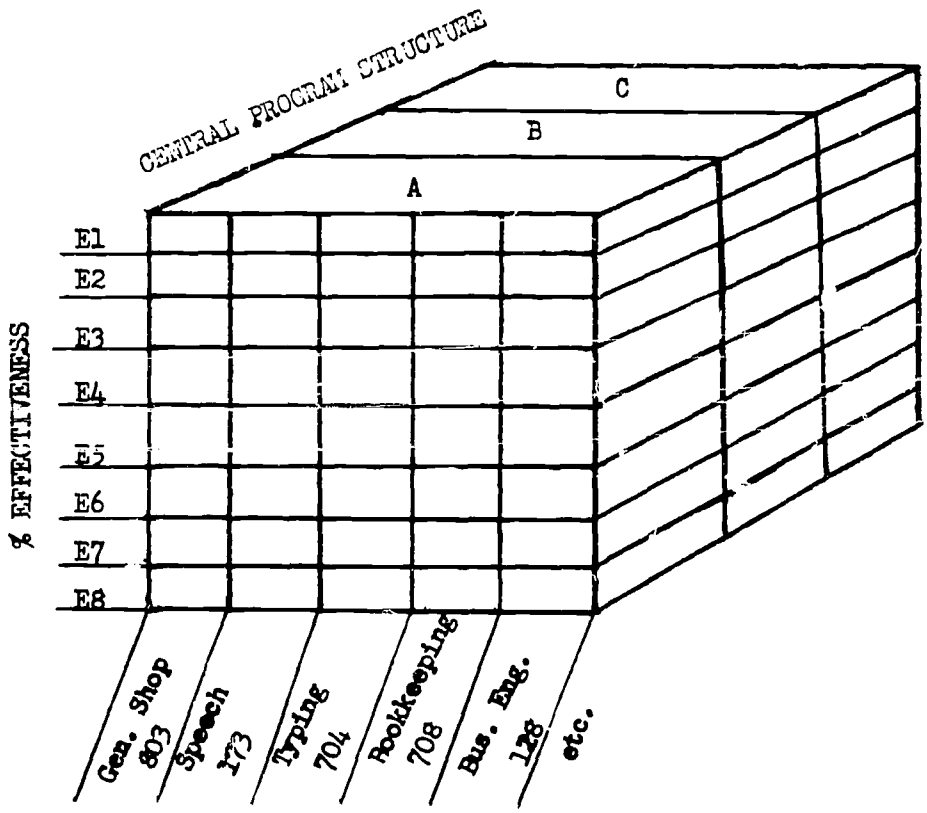
BASIC EVALUATION DATA FORM

* All figures are weighted % EFFECTIVENESS		Welding 324	Spanish I 392	Home Economics 242
		*	*	*
Instructor (see next page for detailed example	EL e1a e1b etc.	90	95	93
Equipment	E2 e2a e2b etc.	85	92	91
Supplies	E3 e3a e3b etc.	87	85	70
Course Design (Instructional Materials)	E4 e4a e4b etc.	92	89	83
Facilities	E5 e5a e5b etc.	95	80	92
Guidance Counseling	E6 e6a e6b etc.	90	87	90
Student Progress	E7 e7a e7b etc.	100	95	98
Student Placement	E8 etc.	89	NA	NA

(THE ABOVE ARE SAMPLES FOR ILLUSTRATIVE PURPOSES)

etc. for all courses and sections in each center---------

MEANINGFUL EVALUATION DATA CAN BE TRANSLATED INTO THE CENTRAL PROGRAM STRUCTURE FOR OVERALL EVALUATION



THIS TRANSLATION WILL PROVIDE AN INDICATOR OF THE QUALITY OF EDUCATION IN OUR PROGRAMS

OBJECTIVES OF EVALUATION . . .

1. To provide cost-benefit information in the selection of program structures, and in determining the relative emphasis among programs.

2. To provide cost-effectiveness data on alternative means of conducting programs.

3. To determine the overall quality of Educational Programs by examining:

   a. The quality of survey techniques used to establish educational goals and programs.

   b. The appropriateness of relative emphasis established within and among these programs.

   c. The degree to which the central program structure is fulfilled by training center and departmental activities.

   d. The features of educational process, supporting activities, environment and results which are capable of evaluation, i.e.:

      Instructor
      Other Instructional Personnel
      Instructional Equipment
      Supplies
      Course design & materials
      Physical plant facilities
      Student selection
      Guidance & counseling
      Student Progress
      Student Placement

4. To provide specific data on weaknesses in educational processes so that corrective action can be taken in the most effective manner.

5. To enable beneficial innovations to propagate most effectively.

6. To assure the most effective feed-back of evaluative information into planning processes.

7. To determine the effectiveness of innovative activities.

8. To identify good and outstanding performance so that:

   a. Appropriate recognition can be given.

   b. Better professional assignment practices can be implemented.

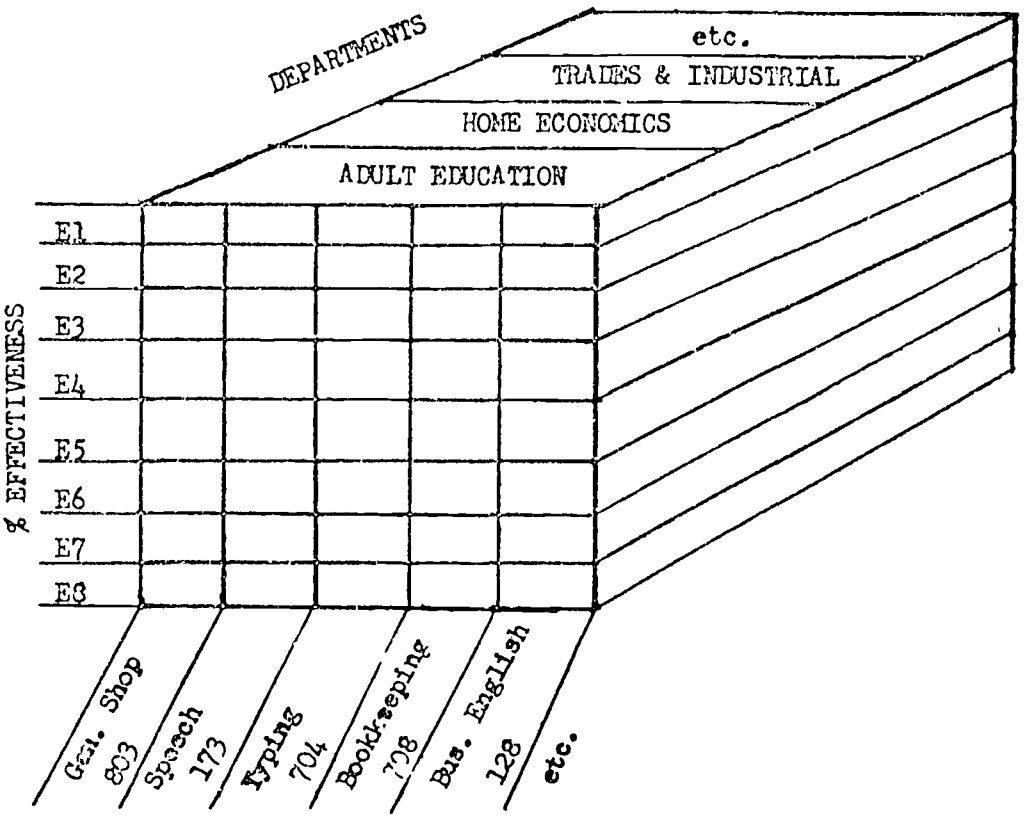
INSTRUCTIONAL PROCESSES, ENVIRONMENT AND SHORT-TERM

RESULTS WILL BE EVALUATED IN COURSE

COLUMNS FOR EACH CENTER---

The Basic Evaluation Data Form which follows illustrates the application of paragraph 3d of the OBJECTIVES OF EVALUATION found on page 16....

DEPARTMENTAL INTERPRETATIONS OF EVALUATION DATA WILL SHOW WHERE IMPROVEMENTS CAN BE MADE IN ANY DETAIL DESIRED



EVALUATION CAN BE PERFORMED ON ANY ELEMENT OF THE INSTRUCTIONAL PROCESS OR IN SUMMATION BY COURSES, CENTERS, DEPARTMENTS OR CENTRAL PROGRAMS

SIMILAR EVALUATIVE ANALYSIS WILL ALSO BE MADE OF ALL SUPPORTING SERVICES

Chapter XVIII

"A Guide to Innovation in Education"
Ronald G. Havelock, University of Michigan, Ann Arbor, Michigan
The taped discussion by Dr. Havelock included the following points.

An overview of the contents of his text:

INTRODUCTION:
- Why use this book?
- What is the process of innovation?
- Defining your own role:
  - Catalyst
  - Solution Giver
  - Process Helper

PART ONE: CASE STUDIES OF CHANGE AGENTS IN ACTION

- Linda: "Black Studies" Program stimulated by a student
- Mike: A teacher helps introduce sex education
- Steve: In-service training in human relations
- Henry: New social science curriculum introduced by a change agency.

PART TWO: THE STAGES OF PLANNED CHANGE

1. Building a Relationship (between change agent and client)
2. Diagnosing the Problem
3. Retrieving Relevant Knowledge
4. Choosing the Solution
5. Gaining Acceptance
6. Stabilizing the Innovation and Terminating the Relationship

PART THREE: SUPPLEMENTARY RESOURCE INFORMATION

Strategies and Tactics:

1. Considerations in choosing the best strategy

2. Relevance of various strategies for each of the six stages of planned change (a Table)

3. Glossary including 44 strategies or tactics

Major Information Sources:

1. Information Services

2. Libraries

3. Directories and Indices

4. Consulting Organizations

5. Academic Orgnaizations

6. Human Resources

7. Government Agencies

8. Professional Organizations

9. Other School Systems

Major Works on Change: An annotated bibliography with author and subject index. Each entry includes a listing of contributing authors (for anthologies and collections), major topics covered and a summary paragraph.

Chapter XIX

Summary of Institute Evaluation
Dr. E. L. Kurth, Institute Director, Associate Professor, University of Florida, Gainesville, Florida

In order to receive some feedback from the institute participants the North Carolina Center for Occupational Education devised a pre-test and a post-test which was administered to all institute participants. The results would be helpful in planning future institutes. The post-test on Form 3 contained some thirty-three items the answers to which related to the institute attended. In addition to this a check sheet for a daily evaluation and a final evaluation was constructed by the directors and staff of Institute II in order to have daily and continuing feedback during the course of the institute.

The answers of the Form 3 would indicate that the objectives of the institute were achieved. They also identified the weakness or deficiencies which occurred in either or both the planning and the carrying out of the program.

The strengths were that as a result of attending all participants planned to modify their present as well as their future work. Twenty-seven of thirty-one planned to continue to exchange information with other participants. Twenty-nine of the thirty-one would apply for this institute again if given an opportunity and thirty of thirty-one would recommend others in positions similar to theirs to attend.

The weaknesses or deficiencies related to substitutions of consultants which had to be made on the program. For the opening session the graduate dean substituted for the vice president of the university who was to substitute for the president. A department head substituted for the dean of the college of education.

For the program content several of the State Department of Education staff could not keep their commitments due to legislative committee hearings. The substitutes did an adequate job but did not have time to plan as thoroughly as they would have liked. The Institute Directors were aware of this but were unable to make any further adjustments of personnel.

Another program lack was the need for more information about the use and applications of the case studies and simulated problems before they (the institute participants) were faced with making decisions. Part of this lack was planned in order to stimulate the use of new approaches to problem solution. The other deficiency mentioned several times on Form 3 was the lack of free time during the institute for participants to pursue special interests relating to their jobs or visiting local programs. This was a justifiable reaction as no free time during the daily sessions or from the daily sessions was planned. Several evening sessions could have been planned with some compensating free time during several days.

The daily evaluations rated the program at adjournment time each day. In general they corresponded to the concensus arrived at in the post-test except that the item on the case studies and the free time were not identified. The overall evaluation in which the participants were requested to rank order the items on the program found the programs substitutions rated lowest. Rating other parts of the program varied with the apparent interests of the individual participants. In rating other elements of the institute the matter of the stipend provided was judged inadequate by many.

The scale for the daily evaluations had 5 to indicate excellent, 3 meant a moderate rating and 1 denoted a negative reaction. Each presentation was also rated on the basis of its usefulness (U), interest (I), and appropriateness (A). Of the total 10 days of presentations less than 10 per cent were rated in the 2 or 1 category. The overall mean score was just over 4 which indicated a high level of satisfaction.

It may be worth mentioning that the provisions made for meeting the participants upon arrival at the airport and transporting them to the Reitz Union when they were housed was rated 5. Although this involved some problems for making the best of some meager airport and local transportation deficiencies it did provide a good opportunity for the directors and staff to get acquainted with the participants and establish a good relationship.

Copies of the evaluative instruments are found in the appendices.

Appendices

SIMULATION DEVICES

Introduction

Running through the writings related to change agentry is the common theme that one essential part of developing new ways of doing things involves an opportunity to test new behaviors in a "non-threatening but realistic" situation. This fact, coupled with the range of sophistication in PBS principles represented in the participant group, made it appear that the use of simulation devices would be highly desirable in enabling participants to master the fundamental techniques of program planning budgeting for annual and long range purposes. With this thought in mind, the institute staff developed a series of simulation devices which would offer opportunity for participants to employ newly presented skills.

The criteria established by the Institute co-directors for simulation materials to be developed for the Institute were:

1. Opportunity for "reality testing" of a new behaviors or new skills must be provided.

2. All essential information and dimensions should be available to enable application of good planning procedures to each of the problems utilized.

3. A range of technical areas should be represented, both to illustrate the universality of PPBS principles, and to maximize transferability of experimental activities.

4. All participants should have opportunity to experience each step and phase of planning, rather than either being restricted to his or her normal area of specialization or being dependent on some other individual or group for a previous step.

5. Problems should be adequately complex to challenge the most sophisticated participant without being so complicated that the inexperienced would be overwhelmed.

6. Avoidance of constraints peculiar to local situations is necessary if concentration is to be on operational and learning activities, rather than on re-hashing of the frustrations and limitations of each participant's "home" operation.

7. All activities should be oriented to a single environment, with minimum participant time and effort expended in becoming acquainted with the dimensions and constraints associated with the locale.

8. Programs should be unlike those normally treated by the participants without being either so ridiculously simple or far-fetched that they appeared, to the participants, as "mickeymouse" or busy-work.

9. Any adoption or adaptation of previously prepared materials should be made only where the volume and/or type of work would be appropriate to Occupational Program Planning for Rural Areas (effectively and efficiently).

10. The locale selected or developed should represent a sample of the geography, population distribution, economic conditions, educational opportunities, political realities, and personnel to which each participant could relate his own situation.

Two anticipated possible problems were considered in the development of simulation materials. One of these was that if the programs to be developed along the planning guidelines were quite similar to programs which have been initiated by the participants in the past, the likelihood of using "tried and true" techniques rather than attempting the application of new techniques would be overwhelming. The second anticipated pitfall was that if each participant attempted to solve the same problem he would bring the environmental factors with which he was familiar to bear upon the problem and this would handicap communication because no two participants would be likely to have completely similar backgrounds. The attempt, therefore, was made to develop a single set of background information under which each participant and each group of participants would work from the same fact base, and to deal with problems which were not the kind that were ordinarily encountered but which retained elements of feasibility and probability which would not remove them from the realm of normal problems completely. It was also considered important that the problems introduced early would be problems which could not be

solved in their entirety simply because the information available would limit the amount of progress that could be made: this would then require the participant to focus on those principles of program planning which occurred in the early stages of planning all programs. Since closure could not be achieved because of the abbreviated information available, the participant would be forced to concentrate on that early stage of the planning process.

Additional elements of the problems of administrative planning were introduced through the use of simulation materials which had been developed previously by one of the institute co-directors. These materials are identified and are included in the body of this report as information items for the reader, although any future use of these materials is reserved for their originator and their transfer to the public domain is considered not to be consumated through this publication.

The simulation materials developed especially for institute II include: the background materials "The Suzerain State of Kenida," "Organ Bank In-Basket," "Commercial Vechicle Operators School," "Want a Soft Job," and "Mount Pandora In-Basket." Each of these devices is treated in more detail in paragraphs to follow.

Development of Simulation Materials

The Suzerain State of Kenida

The creation of a viable hypothetical state which would incorporate as much of the rural characteristics common to all areas of the United States as possible, and yet not require the generation of enormous amounts of statistical and other data was achieved by the expedient of geographically combining a somewhat modified version of Florida with an inverted version of Kentucky into a single political entity. This device enabled the direct

application of all available statistical information applicable to these two states to the newly created state of Kenida. The geographic orientation of each of these states was intended to aid the persons who might be familiar with either or both states to make the transition without being handicapped by their own knowledge of particular sections or locations in either or both states. A very abbreviated account of how this political union had been achieved was presented as background. In a few instances where county names were duplicated it was necessary to provide alternate names for these political subdivisions.

Employing the format normally used in presenting Part I of the state plans provided by the Vocational Education Admendments of 1968, maps of the state of Kenida were provided which depicted areas that were classified as economically depressed, with high ratios of youth unemployment, with high population concentrations, and areas which were 50 or more miles from population centers of 25,000 or larger. Each participant was provided a copy of the materials related to the state of Kenida and given adequate time to digest and discuss the content in order that they could become reasonably familiar with the characteristics of the area which would have specific implications for Vocational Program Planning.

Organ Bank In-Basket Exercise

The organ bank exercise was built around a copy of a counterfeit news release. This counterfeit news release was attached to a letter from the Provost of a hypothetical university and addressed to State Director (Commissioner) of Vocational, Technical, and Adult Education indicating the desire of the medical school to establish an organ bank employing the techniques and principles reported in the news release. A brief summary of the status and position of the State Commissioner of Vocational, Technical, and Adult

Education was also included. The name assigned to this Commissioner was George Giddiap.

The participants were divided into five approximately equal size groups and instructed to act as five George Giddiaps. The intent was that each group would function in the capacity of the George Giddiap.

The written ma erials related to the organ bank problem were supplemented by an interview with a pathologist from the University of Florida Medical Center. After each of the Giddiap groups had formulated the questions which they felt needed to be answered before they could proceed with even the basic planning, Dr. Ned Hardy came to the large group meeting room and role-played the representative of the Medical School Provost. One member of each Giddiap group team served as spokesman for presenting his groups' questions. The interview session was lively and generated much interest.

Typical of the pertinent questions which were presented to Dr. Hardy were those relating to the kinds of incomes that technical personnel in an organ bank installation might anticipate, the number of such persons who might be required, to relative merits of converting other kinds of technical man-power to this function as compared with training from the ground up, and the specific duties which an organ bank technician might be expected to perform.

Armed with this additional information the Giddiap groups reassembled and once more undertook the preliminary planning of a program for the establishment of training facilities to produce organ bank technicians. One of the considerations which frequently entered these discussions was the question of whether to attempt to place a training facility in the Appalachian Region where the workers in need of training were in greatest concentration or to move trainees from their homes to the medical service facility which would be the more logical location of an eventual operating organ bank installation. This, of course,

is part and parcel of the decision process which must always face the administrator in this position.

Commercial Vehicle Operator School In-Basket

This item was presented as a memorandum from one of the former state directors who had remained as a staff member for Commissioner Giddiap. This memorandum outlined the development of a request from a trucking association for the establishment of a driver training school and suggested that the time for such a development had arrived.

Attached to the memorandum was a set of participant instructions which required that the Giddiap groups develop "package plans" for delivery to one of the local institution directors to initiate a commercial vehicle operator school. A series of 13 questions was provided which were intended to be a guide and starting point for developing the background information necessary to make reliable estimates of the anticipated enrollment, cost, and other dimensions of such a program.

Mount Pandora In Basket

This simulation device was constructed along the lines of the Disney World installation under construction near Orlando, Florida. The intent was to provide participants with a large-scale and complex set of employment and training possibilities which would need to be considered, treated, and plannned for in a unified fashion.

A mountainous portion of the northern or Kentucky part of Kenida was selected as the site for Mount Pandora. It was expected that one challenging feature in the problem would be the proximity of this location to a sizeable number of individuals who would constitute a pool of untrained man-power whose geographic isolation made employment difficult to obtain.

The narrative presentation of materials concerning Mount Pandora was designed to give reasonably concrete guidance in the basic kinds of employment possibilities which would be inherent in the installation. In addition, the narrative provided some "feel" for the nature and operation of the installation, the future possibilities for the area which would accompany the opening, the implication of permanence inherent in the amount invested, some statistical information about the Disney World installation for comparison, a map (over-lay) for geographic orientation, and a sprinkling of information which was only marginally relevant to the development and installation of training programs. The last-mentioned elements of information were included to necessitate participants making decisions about which information was important in the choice and design of training programs and which information was "nice but unnecessary."

Want a Soft Job?

This in-basket exercise was built around an on-going problem in the poultry industry, the disposition of feathers. The purpose was to provide participants with experience in designing programs and analyzing the implications of emerging occupational categories.

To some extent the "feather" problem incorporated dimensions of both the organ bank and the motor vehicle operators school. This dual dimension was expected to require review of those elements of program planning which had been employed in both of the previous exercises.

The technical process of converting feathers into usable products was based on previous industrial experience of attempts to solve the disposal problem. Although the process by which the products described in the case study were developed has proven economically unfeasible in the past, for purposes of this kind of planning the constraints of reality, in a chemical sense, were waived.

This problem was also developed to complete a range of occupational areas representation that would permit the application of sound planning procedures to the emerging health occupations, the field of recreation, reasonably common occupational programs, and agriculture related occupations.

Institute Use of Simulation Materials

Kenida

The background material on the Suzerian State of Kenida was presented on February 3 and the participants were given a brief introductory oral statement to acquaint them with the developmental procedure used in generating the State of Kenida. The large group was divided into smaller groups in order to facilitate interaction, discussion, and clarification with and of the details of the background material. Opportunity for the participants to become acquainted with each other in the smaller groups was also expected.

Initial reaction to the background materials was quite varied. Some participants arrived so eager to begin work that they felt this to be a diversion. Others had not achieved adjustment from the experience of travel which sometimes involved last-minute adjustments brought about by the airline strike and the normal problems which accompany travel. The majority of the participants were able to make the transition into the background materials with little lost motion.

Following the opportunity for the small groups to discuss and clarify details of the State of Kenida, an additional meeting of the total group dealing with the background materials was held. This session afforded opportunity for clarification of some of the inclusions and omissions which had become concerns of the participants.

Organ Bank

The introduction of the Organ Bank Exercise, on February 4, aleviated some of the anxiety developed by the background material, in that it provided an opportunity to discover the relationship between the two exercises. More careful examination of the background materials resulted from the first attempts to orient the Organ Bank problem to the activities of the participants.

In addition to the Organ Bank exercise, each Giddiap group was provided with two state plans for vocational education. Using the Kenida materials as part I of the State plans, and part II provided by other states, each Giddiap group was to pursue the five objectives outlined in the Organ Bank In-Basket Narrative. Copies of the Vocational Admendments of 1968 were also utilized in this exercise.

Commercial Vehicle Operator School

Whereas the Organ Bank problem was restricted to the application of demographic and related data, the Commercial Vehicle Operator problem required concentration on acquiring a different kind or set of data, and consulting different sources of information.

Didactic presentations concerning useful sources of information and their utilization preceded the initiation of this problem. An opportunity to make an extended tour of library facilities, provision of a carefully refined and expanded direct guide to the physical location of important resource documents, together with the consultant inputs were expected to facilitate retrieval of information necessary for deliniating the demand for trainees, cost of operating equipment, and other dimensions of the problem. This elaborate preparation, as was explained to the participants, was a substitute for the kinds of resources they might have available to

them in their individual home locations, in the form of research departments, transportation, employment, and other agencies--within or outside the educational and/or governmental enterprise.

A limited amount of time was made available to the groups for pursuing the data-gathering requirement posed by this exercise. While it was suggested that each group divide the responsibility for research activity among its members, some groups defaulted to individuals who volunteered. At least one group had a member who had brought a very adequate library of statistical compilations with him, thereby permitting the group to avoid seeking through other channels. In other instances, careful organizing and efficient researching were managed. Since the intent of the exercise was to give participants experience in locating and utilizing various kinds of statistical information, it was not considered essential that each person work with every possible source; it was deemed critical that all be aware of and be able to locate and to use as many sources as would ordinarily be available. The importance of knowing that some information was obtainable from more than one publication was not overlooked.

Practice in anticipating the requirements of a program, when implementation was begun, should assist state-level personnel in being more sharply aware of the local institution's problems. Being able to guide people in the field, who may be remote from many sources of information available in the state capitol, to viable sources which would be found in most communities was also considered as a justificiation for requiring utilization of full documents, rather than the more efficient procedure of providing reproductions of essential sections at the Institute site.

Cawtin B. Tween Letter/Resolution

While participants were still engaged in details of the Motor Vehicle Operator exercise, this pair of items was introduced. While not directly related to or specifically developed for the Institute, these materials served to remind that more is involved in planning and conducting a training program than technical content and educationally sound organization. Philosophical considerations, such as those illustrated by the letter and resolution may place the institution and its operating agency in a difficult position.

Intended to remind participants that the voice and desires of the public are very real and important considerations, and that uninamity is not always characteristics of those desires and that voice. This input was not treated with the depth of consideration provided other devices. Much of the deliberation and discussion bearing on the dimensions represented by this material took place in the informal and small-group conversations.

"Want a Soft Job?"

Because the task of estimating the work and progress capacity of an unidentified and unknown group is virtually impossible, the not enough-too much question was resolved through developing what was anticipated to be an over-abundance of problem materials. Should the participant group fail to accomplish all prepared projects within the Institute schedule, and surplus cases would be distributed without expectation that they would receive full-group consideration.

This problem was the selected victim. Except for dealing with a relatively unused technical content area (agri-business-related) it would have served primarily as a review-reinforcement of the previously encountered

considerations of the peculiar dimensions of planning for rural youth and general planning principles used in previous cases.

Mount Pandora

Whereas relatively simple, single dimension programs were suggested by other simulation cases, this provided complex, interrelated, interdependent, and relatively common types of programs. Focusing on an area which epitomized the introduction of extensive employment potential into a previously bleak situation, the need to maintain awareness of several facets while working with one would give this in-basket a desirable congruenece with reality.

As with the Commercial Vehicle Operator program, this unit was introduced while all groups were continuing work with previously presented activities. One of the realities of life being that demands do not wait their turn, increasing the pressure to assign priorities and ration time would develop a closer identity between the work within the institute and the real-time world which surrounded it.

Evaluation of Simulation Materials

Without the simulation materials, or some surrogate, much of the eventual value of the consultants, resource material, interaction, and other inputs would have not been realized. Immediate utilization of new knowldege and skills provided both practice and opportunity to evaluate the extent and usefulness of understanding. Although none of the Institute staff performed evaluative activities, each participant obtained a measure of his or her grasp of the materials and had opportunity to return to the consultant and/or other resources for answers to questions which grew or developed only when application of learning to doing began.

Mr. Cawtin B. Tween, Director
Vocational-Technical School

Dear Sir:

As a taxpayer and loyal supporter of your institution, I felt an obligation to report to you the gist of a discussion which took place in a recent meeting where several others like myself were assembled. I must admit that part of the reason I am writing this is that I found reinforcement for my own beliefs in the remarks of these other persons. I am generally satisfied with your present operation but, some minor but rather serious weaknesses are present.

The graduates of your "Hide Processing" program seem to be able to perform competently in their chosen occupation. They can generally select the correct preservative and conditioning compounds to give characteristics which enable making the best use of each hide. The skills they develop in making the final trimming cuts also testify to the excellence of their training. In short, their technical preparation seems very satisfactory.

Your "Hide Processing" program not only provides all of the essential knowledge and skill for the work, there seems to be little of the trainees' time wasted in teaching them "Skinner" skills or in teaching them about the development of new processing compounds. This is good since we have other programs for these people. It is also good that you provide the "Processing" trainees with enough understnading of the other two areas that they can communicate with both groups and understand the problems of those who use the finished hides in making other things.

My criticism, and that of the group which I was with, lies in the fact that these "Processors" do not spend all their time at work, yet this is all you equip them to do. The other things they are expected to do -- interact with other people, raise families, live as neighbors, assist with group projects, etc. -- for these they seem, generally, to be unprepared. They sometimes show a lack of pride in the work they produce, as though they were isolated laborers, when they are, in fact, part of a long and rich heritage following an occupation which has its roots in our earliest history and yet is as modern and advanced as today.

What I am suggesting is that the program should contain some elements which make people aware of the development, growth, and status of their occupation. They should be acquainted with the names and lives of the most important contributors to the advancement of our civilization and particularly to the work of hide processing. These things are fundamental, without them, no worker could really be considered educated.

I shall look forward to your anouncement that you have made your program complete by adding this emphasis.

Sincerely,

Atacks Payer

R E S O L U T I O N

WHEREAS we, the Amalgamated Hiding Industries, depend on the graduates of our schools and their training programs to provide employees who are able to enter our plants as productive workers, and

WHEREAS Amalgamated Hiding Industries are a vital part of the economic being of our community, constituting the largest single segment of income-producing activities, and

WHEREAS we are, from time to time, required to contribute toward the support and operation of said schools, in both financial and other ways, and

WHEREAS the products of said training institutions sometimes fall short of the needs of member organizations of Amalgamated Hiding Industries, thereby necessitating additional training at the sole and single expense of said organization, thereby creating an additional and unnecessary diversion of funds which would be expended on general community betterment,

Therefore, BE IT RESOLVED:

That Amalgamated Hiding Industries seeks to affect the following change in the curriculum of those schools which train "Hide Processors."

1. Greater emphasis on the development of those skills which will make each graduate a "first-day productive" employee.

2. Less emphasis on those areas which do not relate directly to job performance and early competence.

3. Immediate implementation of those changes which will fulfill #1 and #2 above.

Participant Instructions

ORGAN BANK IN-BASKET
NITMVRPRA II

You are George Giddiap. You were invited to serve as Commissioner of Vocational, Technical and Adult Education for the new State of Kenida. Your "legacy" consists, in part, of two former departments, one for each of the original states. Until such time as you can formulate, submit, and receive approval on a STATE PLAN for Kenida, you must function within the framework of the two existing documents. Permission for this interim arrangement has been obtained from Washington, along with a strong admonition to maintain the integrity of both plans.

The persons who functioned as directors in the former states have both agreed to continue as a part of your staff and the majority of their personnel are continuing, pending finding other employment or being phased into other positions in the new governmental structure. The few minor instances of friction which naturally developed have been brought under control in the three months you have been on the job.

Among the items which you found in your in-basket this morning are the attached letter and accompanying clipping.

The Kenida University is, in reality, two former institutions which have been administratively joined into a single unit with two geographic centers. One of these centers is located in County #78 and the other is in County #147. Pillius Muchos, Provost of The University's College of Medicine, is a highly respected and world-renowned member of both the academic and medical communities and works directly under the Chancellor of the University, Dr. I. M. Academic.

Using the information available to you in the clipping, Dr. Muchos' correspondence, the documents relating to the former states, and your own estimation of what is entailed, work with the members of your group to accomplish the following objectives:

1. Prepare some tentative suggestions for alternate locations of the installation for which you are being requested to prepare staff.
2. Compile a series of questions you wish to present to the medical school staff member in order to clarify what you will be expected to accomplish. (There will be an opportunity to interview this person as a part of the Institute, within the next two days.)
3. Explore the limitations imposed by agreements (state plans) within which you must operate.
4. Develop a list of other agencies you will need to coordinate within the development of a program, both those whose aid you can use and ones whose opposition you wish to avoid.
5. Speculate about the alternatives available in relation to program operation, i.e. - supplement training of medical technicians brought from outside; recruit from chemists and other groups; train high school pupils, adults, etc.

MAKE A WRITTEN RECORD OF EVERY ACTION YOU THINK YOU WOULD PERFORM, INCLUDING TELEPHONE CALLS (e.g. Call Joe and ask for weather forecast) LETTERS (gist of message or purpose) ETC.

COLLEGE OF MEDICINE

The University of Kenida

ORGAN BANK
IN-BASKET
NITMVRPRA II

Mr. George Giddiap, State Director
Vocational, Technical and Adult
Education
State Capitol, Kenida 00000

Dear Mr. Giddiap:

When the attached news release was brought to my attention and I realized the import it had for us, I began contacting individuals here at The University and in the State Capitol circles. Your name was repeatedly raised as the person to contact. I sincerely hope you can assist in solving what I anticipate to be a major problem in developing an important addition to our program and capabilities.

There are presently on our staff, or available to us, professional personnel adequate to supervise the establishment and operation of an installation similar to the one described.

The marginally adequate number of technicians presently in our employ cannot be diverted to operate and maintain such a program without serious curtailment of existing programs. We have used every means available to recruit our present support staff.

Unless personnel can be trained to perform the support functions which one of these "banks" will require, we will be unable to maintain our position as regional and national leaders in medicine, in relation to this new development.

I can make a limited amount of the time of one or more of my staff members available to you in the near future to assist you in deliniating the requirements of such a program. Although all the details are not available at this time, I feel it is urgent that we begin to formulate plans as soon as possible.

Yours very truly,

PILLIUS MUCHOS, M. D.
Provost

PM:bes

cc: Chancellor I. M. Academic
Governor Laude Nunkirk

Major Breakthrough Revealed In Human Organ Preservation

ORGAN BANK

IN-BASKET

NITMVRP.A II

STOCKHOLM (AP) - Feb. 1 ----------A scientific breakthrough that permits the long-term storage of major human organs such as heart, kidney, lungs, and brain tissues in organ 'banks' was revealed here today in a paper presented by a young Hubbard biochemist.

Heralded immediately by assembled medical observers as "among the most significant scientific accomplishments of the century," the breakthrough was outlined in a paper delivered to the winter meeting of the Global Health Organization by Dr. Amatai Refryee, 39, a biochemist on the research staff at Hubbard Medical School.

The new organ storage process, Dr. Refryee told the group, is based on discoveries concerning the use of exotic chemical compounds extracted from samples of moon soil.

"Future transplants will no longer be delayed until chance circumstances bring together a suitable donor, a needy recipient, and a qualified medical team," Dr. Refryee reported in the scientific presentation.

Past transplants have been severely hampered by a limit of about 22 hours on major organ preservation without deterioration. Dr. Refryee reported that the new process developed in his laboratories can provide "almost 'ndefinite" organ preservation after their surgical removal.

Observers commenting on Dr. Refryee's paper called it "entirely sound" and predicted that if funding and manpower requirements are met, organ banks could be operative on a regional basis in the U.S. in 18 months to 2 years.

Basis of the new process, Dr. Refryee reported, is Vitallite, a mineral found in rock and soil samples returned from the moon surface by U.S. Astronauts. Vitallite, he reported, has an unusually high concentration of life-giving oxygen. Analysis of the mineral disclosed that it could be easily synthesized from the large quantities of waste products from Atomic Energy Commission uranium processing plants.

Historically, the problem for major organ preservation has been rapid deterioration due to oxygen-starvation. Vitallite--though practically insoluble in water--is moderately soluble in fluoro-carbons. Dr. Refryee and his research team found that these liquids are capable of dissolving gaseous oxygen in concentrations 100 times as great as water at the same temperature.

"It is this oxygen-producing property that allowed our biochemical research on long-term living tissue preservation," Dr. Refryee reported.

In the process described by Dr. Refryee, one set of chemicals is supplied to the cyrogenically treated organs to provide the compounds and elements normally derived from the blood and products of other body functions. The newly developed compounds are circulated through and around the organs, duplicating the support and nurture functions performed in and by the living organism. Other chemical compounds are supplied to the organs, permitting them to continue their normal functions at a reduced rate.

Final blending of necessary chemicals, Dr. Refryee said, must be carried out by specially trained organ bank personnel just prior to use, and under highly controlled conditions. In addition, organ bank technicians will be responsible for monitoring and balancing the composition of chemical solutions, temperature, metabolic rates to which organs have been accustomed, and other conditions.

Vitallite--or a man-made chemical of similar composition to the moon mineral--is already in commercial production in a pilot plant being operated by United Carbide, according to Dr. Refryee.

"Scientific and technical problems of organ preservation--and organ bank operation--are almost totally resolved," the Harvard scientist explained. "Laboratory personnel with appropriate technical education and specialized trainings, plus necessary funding are the only major obstacles remaining to establishment of these human organ banks."

In Washington, press aides to U.S. Surgeon General, Dr. Hugh P. Crattes, announced that the Surgeon General will hold a joint press briefing with Dr. Refryee upon his return to this country. Global Health Organization officials predicted the young scientist would leave Stockholm for Washington late Thursday.

WANT A SOFT JOB?

What would you suggest doing to dispose of a two million pound pile of poultry feathers -- every day? This is a problem faced, collectively, by the poultry producers and processors in the United States. Although the problem has plagued the industry for years, and many solutions have been explored, the long-awaited opportunity to escape has arrived. The best part, according to industry spokesmen, is that there may be a profitable new business built on this pile of feathers.

Employing a chemical process developed at the Kenida Institute of Poultry Production (KIPP) the feathers are converted into an insulating foam which can be applied to fruit trees or vegetable crops to protect them from freezing. Subsequent rain or irrigation water then washes away the protective foam, which is soluble in water.

Previously developed foam insulations for tender crops have relied on an evaporation process to remove the added material. Where extended periods of cold weather made prolonged maintainence of the blanket necessary, repeated applications were required. Although the feather-based foam cannot be left on vegetation for an indefinite period, because it reduces the plant's access to sunshine and air, it can be left in place for several days where the danger of frost continues.

Combining with chemicals placed on the ground below the plant or tree, the high protein derivatives from the feathers are converted into nitrogen nutrients superior to those found in most fertilizers.

Where do all these feathers come from? In 1967 from broilers and turkeys alone, not considering other kinds of poultry, some 2,700 million birds produced 532.5 million pounds of feathers. Figures for 1968, the latest available, show that the feather problem rose another 23 million pounds during that year. Estimates of the extent of the feather disposal problem in Kenida range upward from an admittedly conservative figure of 9,725,000 pounds for 1968, based on broiler production only. And this does not include the incidental feathers lost by the birds prior to processing for the market.

Several new occupational classifications are also expected to emerge with this new development. Special skills in operating the equipment and applying the foam to crops will require several thousand trainees within the next few years. Conservative estimates place the peak of demand at seasonal need times near 5,000.

Another shortage has become obvious in providing persons who can contact growers and processors and select feathers which are suitable for processing. This selection procedure includes several tests of solubility, fiber

strength, filamentary structure, protein content, and freedom from potentially contaminating insecticides. Further needs which are forseen include sales personnel who can demonstrate the product to grove and farm owners extension agents, and managers of farm supply outlets.

Anticipated expansion of the pilot production facility is expected to provide employment opportunities for several hundred personnel. Those in the production phase will range from highly skilled and trained technicians, in the testing and quality control functions, to machine operators and clerical workers of all kinds.

Science has given the industry some relief recently through the development of processes and techniques for converting feathers into feed, along with some other products with value. The federal government provided some relief for the industry when it stock-piled several tons of the choicest feathers for contingency use in sleeping bags and cold weather garments for the military in the event of a national crisis requiring large-scale production of such equipment. Recent questions raised about the costs and wisdom of storage of these feathers have apparently been resolved.

Many of the former users of feathers, including bedding manufacturers have converted most of their production to synthetic materials which replace the feathers.

The Suzerain State of

KENIDA NITMVRPRA III

Vocational, Technical, and Adult Division
Department of Education

MEMORANDUM

TO: Mr. George Giddiap, Commissioner

FROM: Hard Hand Worker, Director

SUBJECT: Commercial Vehicle Operator School

Late last summer a representative of the state Trucking Association came to my office seeking our assistance in alleviating a persistent problem, the shortage of qualified operators for this vital link in our supply and distribution system. This is the program which I mentioned in our first formal meeting. Some of the preliminary questions which were obstacles then have now been resolved, and I felt you should be up-dated.

Agreements have now been reached between the Kenida Trucking Association, which is the successor to the two former state associations, and the driver's union representatives. We have also received enthusiastic response from manufacturers of equipment, expressing their desire to aid in any way possible.

Our investigations indicate that the limited number of privately owned and operated schools of this type are, with one exception, located some distance away. These schools ordinarily operate for six weeks per course and tuition costs run from $950.00 to as high as $1,400.00 which may or may not include incidental costs, such as books and supplies. The alternative of each company operating its own training program appears to be economically impractical. Neither of us would endorse the other possible answer: placing inexperienced and untrained persons on our streets and highways and hoping they survive to become good drivers.

The potential driver is faced with the eternal "no-job-no-experience," "no-experience-no-job."

We have had several informal expressions of interest from local directors in offering such a program. Some of these do not presently have any readily available off-street area suitable for conducting the behing-the-wheel instruction. Since neither the information on programs nor the governmental reorganization were complete, we made no commitments to any institutions, individuals, organizations, or otherwise.

From all indications, one of the most dynamic and interested centers which has the necessary facilities is that directed by Mr. C. B. Tween. As Director of the Vocational-Technical Area Center, he has been able to give imaginative leadership to several new programs and to achieve willing cooperation from many diverse factions. His leadership among the directors impressed me before we consolidated onto the same "team."

My personal feeling is that the development of such a program should be not only encouraged, but given a high priority push by the department.

PARTICIPANT INSTRUCTIONS

You, George Giddiap, are to prepare a "package" for delivery to Mr. C. B. Tween. This package should contain as much detail as you can provide in anticipation of Mr. Tween's questions when he receives your request that he activate this program. Try to provide what you would want to know if you were a local director, anxious to get the program underway.

Your "Giddiap team" may wish to divide the responsibilities and search out the various kinds of information you will need simultaneously. For some unexplained reason, no other department of the government or any agency from the private sector will provide information to you; you must go to documentary sources yourself.

Using sound planning procedures, assemble realistic answers to questions such as these:

1. Is such a program needed?
2. Will there be employment for graduates?
3. How many programs will Kenida need?
4. Can such a program qualify as innovative or experimental?
5. What would the program cost if equipment use is donated?
6. What would be the cost if no donations were received?
7. What should be included in the program?
8. Who would serve as instructors?
9. Are there special requirements for instructors under the State Plans which would restrict who could be employed?
10. What special preparation should instructors have? Narcotics information? Insurance instruction? Log keeping? Fuel and road use taxes? ICC regulation? Other?
11. What possible sources of students exist?
12. How much pay does a truck driver receive?
13. Would women be interested?

THE SUZERAIN STATE OF KENIDA

Following the general trend of consolidation of governmental units, two adjacent states elected, by an overwhelming majority in a popular vote, to unify into a single state. Not all of the transition has been completed, but the new government is in operation and observers have been surprised to see the smoothness and efficiency with which the change has occurred.

Geographic

Because of its newness, no backlog of data or statistical compilations exists for the new unit. For the purposes of this Institute, however, you may safely assume that the county units in the State of Kenida have very nearly the same characteristics of terrain, ecology, historical background, economic structure and conditions, and other dimensions as the Kentucky and Florida counties whose names are paired with the numerical identifications of Kenida counties. You should be cautious in one respect. The relationship of counties, as to geographic orientation, does not "match" from Kenida to the other two entities. The open area in the right center of the map is a large by which extends around the more southern state to county #128, at which point the two-state State of Kenida is separated from the adjoining land mass by a river. The remaining boundary, along the northern and western edges is occupied by other states.

Commerce

Both coasts of the peninsular portion of Kenida have been developed, in some areas, in relation to the surrounding water. On the north side of the bay the only "typical coastal development" is in the area around county #183, where the river mouth has given an added incentive to this kind of growth.

Several major highways terminate, somewhat incongrously, at the northern edge of the bay. Many of the arteries for trucks and automobiles continue northward through the state or connect with other links in the highway network.

Extensive coal mining has been carried on in the northwestern portion of the state. A combination of factors has reduced the local economic and employment situation in this area of the state; a factor which, when coupled with the geographic characteristics, has brought about a serious condition.

Early recognition of the favorable climatic conditions and extensive waterfront available led to an extensive tourist promotion effort in the lower portion of the state. As a result, a relatively more prosperous condition exists, even though the precariousness of occasional variations in the rate of tourist flow is a constant possibility.

Political

Loude Nunkirk is an individual with enormous personal charisma, exceptional political acumen, great personal wealth, and a long-standing reputation for altruism. His presence and reluctant willingness to

serve as Chief of State have been given much of the credit for the quick and silent birth of Kenida.

Governor Nunkirk's avowed intent to make Kenida a progressively more prosperous and educated state is reflected in the posture of the legislative and other bodies which influence the state. One very popular slogan in the state has been, "Let's make all unemployment voluntary."

Educational

The Secretary of Education is responsible for the execution of educational policy for the entire state. Kenida was most fortunate in obtaining the services of Dr. Leopold Cous, an eminent educator with many years of experience in almost all aspects of academic endeavor, for this vital function. His philosophy, as exemplified in past performance, places a high priority on occupational education -- but it is not his first or complete concern.

As George Giddiap you are situated in the temporary organizational chart in the second echelon below Dr. Cous, with the intermediate slot occupied by an Undersecretary whose responsibilities encompass all levels of in-school education through junior college. You are also to work under and with the Undersecretary of Economic Development who is not in the Education structure. All responsibility for educational programs outside the formal school program "originates" in your office.

Numerical Index of Counties in the

Suzerain State of KENIDA

(with Florida-Kentucky equivalents)

Kentucky

1. Fulton
2. Hickman
3. Graves
4. Calloway
5. Carlisle
6. Ballard
7. McCracken
8. Marshall
9. Trigg
10. Lyon
11. Livingston
12. Crittenden
13. Caldwell
14. Christian
15. Todd
16. Muhlenberg
17. Hopkins
18. Webster
19. Union
20. Henderson
21. Daviess
22. McLean
23. Ohio
24. Butler
25. Logan
26. Simpson
27. Warren
28. Edmonson
29. Grayson
30. Breckinridge
31. Handcock
32. Meade
33. Hardin
34. Hart
35. Barren
36. Allen
37. Monroe
38. Metcalfe
39. Green
40. Larue
41. Nelson
42. Bullitt
43. Jefferson
44. Oldham
45. Trimble
46. Carroll
47. Henry
48. Shelby
49. Spencer
50. Washington
51. Marion
52. Taylor
53. Adair
54. Cumberland
55. Clinton
56. Russell
57. Casey
58. Boyle
59. Mercer
60. Anderson
61. Franklin
62. Owen
63. Gallatin
64. Boone
65. Grant
66. Scott
67. Woodford
68. Jessamine
69. Garrard
70. Lincoln
71. Pulaski
72. Wayne
73. McCreary
74. Whitley
75. Laurel
76. Rockcastle
77. Madison
78. Fayette
79. Bourbon
80. Harrison
81. Pendleton
82. Kenton
83. Campbell
84. Bracken
85. Robertson
86. Nicholas
87. Montgomery
88. Clark
89. Powell
90. Estill
91. Jackson
92. Clay
93. Knox
94. Bell
95. Harlan
96. Leslie
97. Perry
98. Breathitt
98a. Owsley
99. Lee
100. Wolfe
101. Menifee
102. Bath
103. Fleming
104. Mason
105. Lewis
106. Rowan
107. Morgan
108. Magoffin
109. Knott
110. Letcher
111. Pike
112. Floyd
113. Johnson
114. Martin
115. Lawrence
116. Elliott
117. Carter
118. Boyd
119. Greenup

Numerical Index of Counties in the

Suzerain State of KENIDA

(with Florida-Kentucky equivalents)

Florida

120. Liberty
121. Marianna (Jackson)
122. Gadsden
123. Wakulla
124. Leon
125. Holmes
126. Chipley (Washington)
127. Calhoun
128. Gulf
129. Carrabelle (Franklin)
130. Bay
131. Walton
132. Monticello (Jefferson)
133. Foley (Taylor)
134. Greenville (Madison)
135. Okaloosa
136. Santa Rosa
137. Escambia
138. Nassau
139. Duval
140. Baker
141. Columbia
142. Hamilton
143. Suwanee
144. Lafayette
145. Dixie
146. Gilchrest
147. Alachua
148. Raiford (Union)
149. Bradford
150. Green Cove (Clay)
151. St. Johns
152. Flagler
153. Putnam
154. Ocala (Marion)
155. Levy
156. Citrus
157. Hernando
158. Sumter
159. Lake
160. Orange
161. Seminole
162. Volusia
163. Brevard
164. Osceola
165. Polk
166. Hillsborough
167. Pasco
168. Pinnellas
169. Manatee
170. Sarasota
171. De Soto
172. Hardee
173. Highlands
174. Okeechobee
175. Indian River
176. St. Lucie
177. Stuart (Martin)
178. Glades
179. Charlotte
180. Ft. Meyers (Lee)
181. Hendry
182. Palm Beach
183. Broward
184. Collier
185. Key (Monroe)
186. Dade

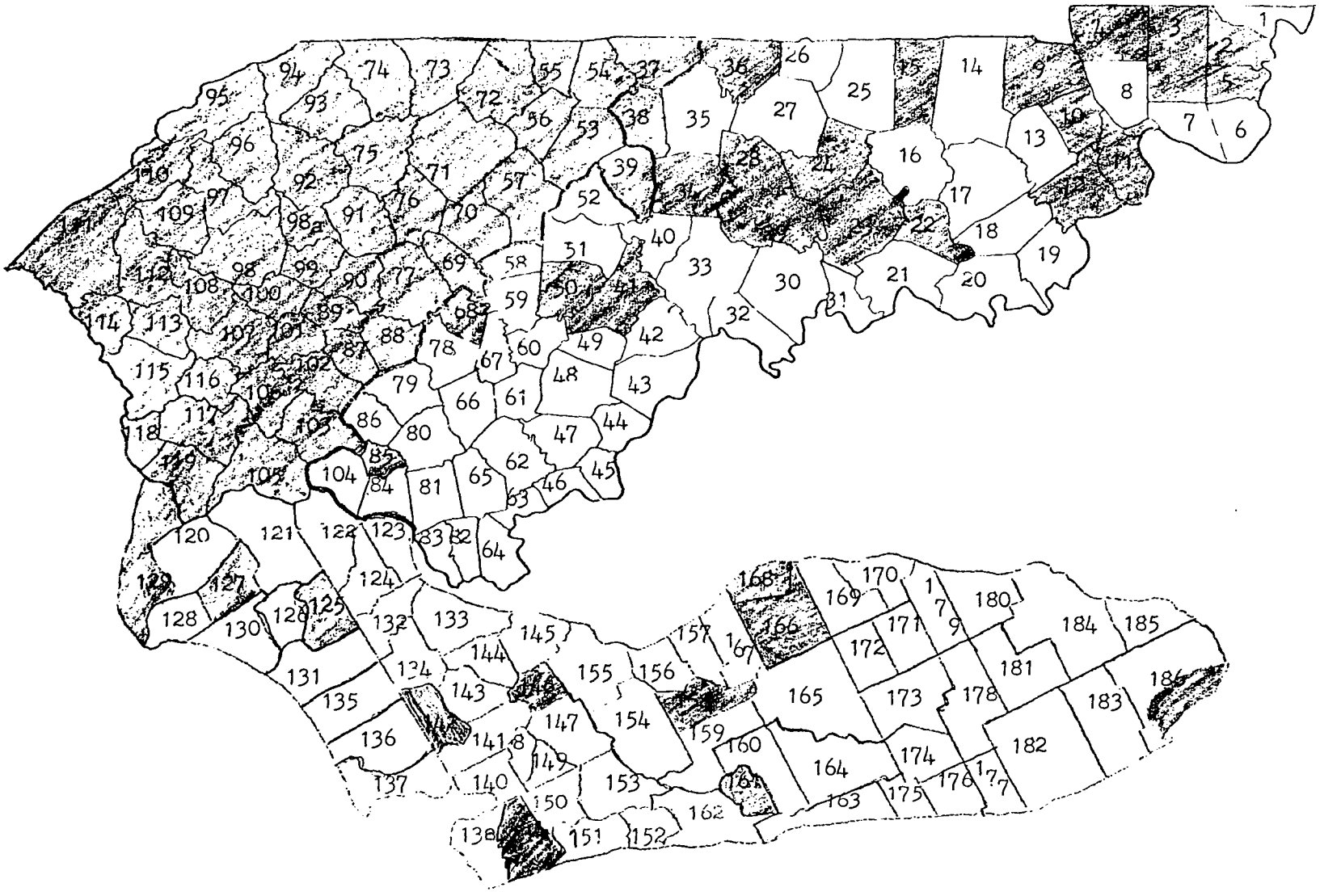
Alphabetical List of Counties in the

Suzerain State of KENIDA
(with Florida-Kentucky equivalents)

Adair	53	Estill	90
Alachua	147	Fayette	78
Allen	36	Flagler	152
Anderson	60	Fleming	103
Baker	140	Floyd	112
Ballard	6	Foley (Taylor)	133
Barren	35	Fort Meyers (Lee)	180
Bath	102	Franklin	61
Bay	130	(Franklin) Carrabelle	129
Bell	94	Fulton	1
Boone	64	Gadsden	122
Bourbon	79	Gallatin	63
Boyd	118	Gerrard	69
Boyle	58	Gilchrest	146
Bracken	84	Glades	178
Bradford	149	Grant	65
Breathitt	98	Graves	3
Breckenridge	30	Grayson	29
Brevard	163	Green	39
Broward	183	Green Cove (Clay)	150
Bullitt	42	Greenup	119
Butler	24	Greenville (Madison)	134
Caldwell	13	Gulf	128
Calhoun	127	Hamilton	142
Calloway	4	Handcock	31
Campbell	83	Hardee	172
Carlisle	5	Hardin	33
Carrabelle (Franklin)	129	Harlan	95
Carrol	46	Harrison	80
Carter	117	Hart	34
Casey	57	Henderson	20
Charlotte	179	Hendry	181
Chipley (Washington)	126	Henry	47
Christian	14	Hernando	157
Citrus	156	Hickman	2
Clark	88	Highlands	173
Clay	92	Hillsborough	166
(Clay) Green Cove	150	Holmes	125
Clinton	55	Hopkins	17
Collier	184	Indian River	175
Columbia	141	Jackson	91
Crittenden	12	(Jackson) Marianna	121
Cumberland	54	Jefferson	43
Dade	186	(Jefferson) Monticello	132
Daviess	21	Jessamine	68
De Soto	171	Johnson	113
Dixie	145	Kenton	82
Duval	139	Key (Monroe)	185
Edmonson	28	Knott	109
Elliott	116	Knox	93
Escambia	137	Lafayette	144

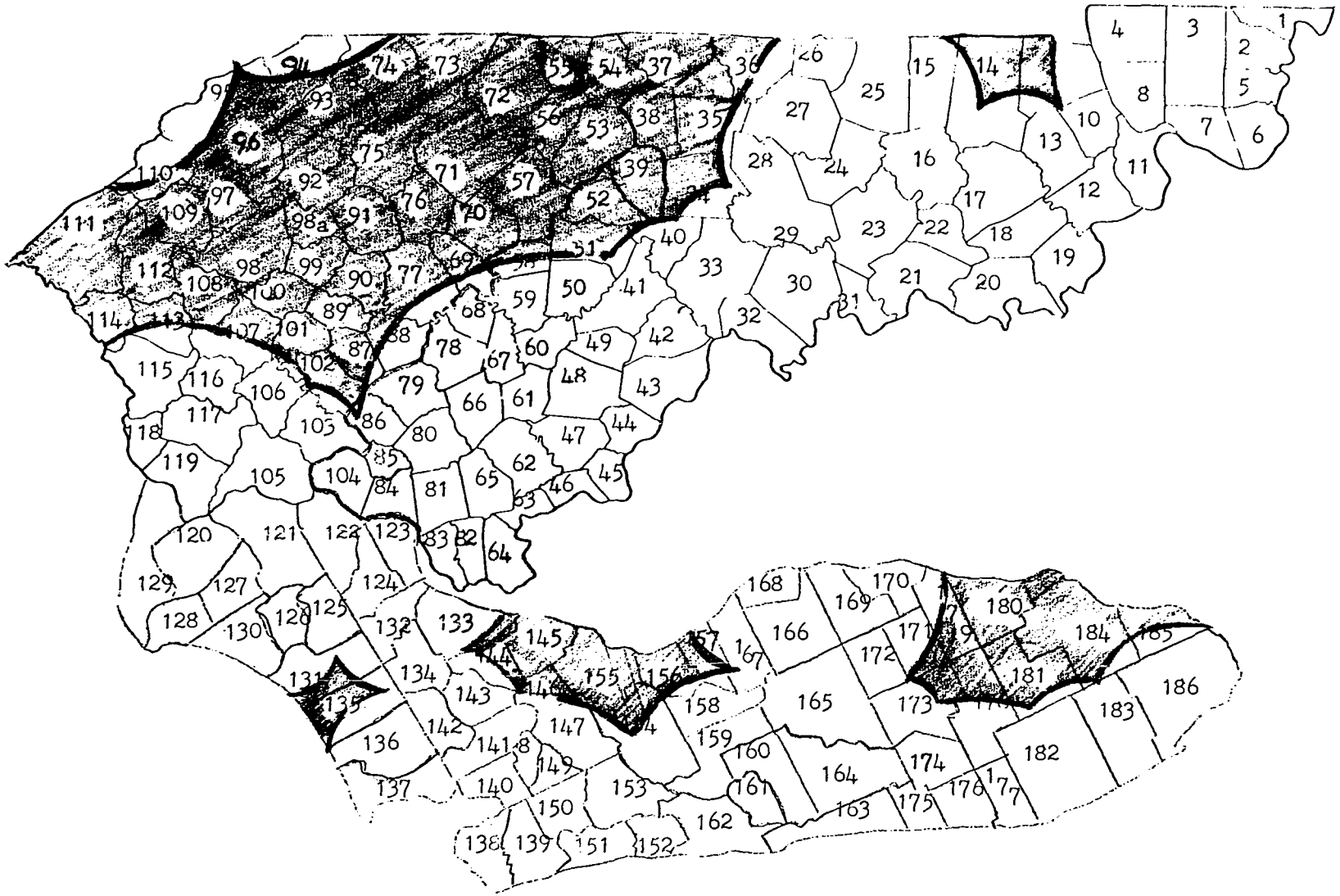
Counties of KENIDA (Cont.)

Lake	159
Larue	40
Laurel	75
Lawrence	115
Lee	99
(Lee) Ft. Meyers	180
Leon	124
Leslie	96
Letcher	110
Levy	155
Lewis	105
Liberty	120
Lincoln	70
Livingston	11
Logan	25
Lyon	10
McCracken	7
McCreary	73
Madison	77
(Madison) Greenville	134
Magoffin	108
Manatee	169
Marianna (Jackson)	121
Marion	51
(Marion) Ocala	154
Marshall	8
Martin	114
(Martin) Stuart	177
Mason	104
Meade	32
Menifee	101
Mercer	59
Metcalfe	38
Monroe	37
(Monroe) Key	185
Montgomery	87
Monticello (Jefferson)	132
Morgan	107
Muhlenberg	16
Nassau	138
Nelson	41
Nicholas	86
Ocala (Marion)	154
Ohio	23
Okaloosa	135
Okeechobee	174
Oldham	44
Orange	160
Osceola	164
Owen	62
Owsley	98a
Palm Beach	182
Pasco	167
Pendleton	81
Perry	97
Pike	111
Pinnellas	168
Polk	165
Powell	89
Pulaski	71
Putnam	153
Raiford (Union)	148
Robertson	85
Rockcastle	76
Rowan	106
Russell	56
St. Johns	151
St. Lucie	176
Santa Rosa	136
Sarasota	170
Scott	66
Seminole	161
Shelby	48
Simpson	26
Spencer	49
Stuart (Martin)	177
Sumter	158
Suwanee	143
Taylor	52
(Taylor) Foley	133
Todd	15
Trigg	9
Trimble	45
Union	19
(Union) Raiford	148
Volusia	162
Wakulla	123
Walton	131
Warren	27
Washington	50
(Washington) Chipley	126
Wayne	72
Webster	18
Whitley	74
Wolfe	100
Woodford	67



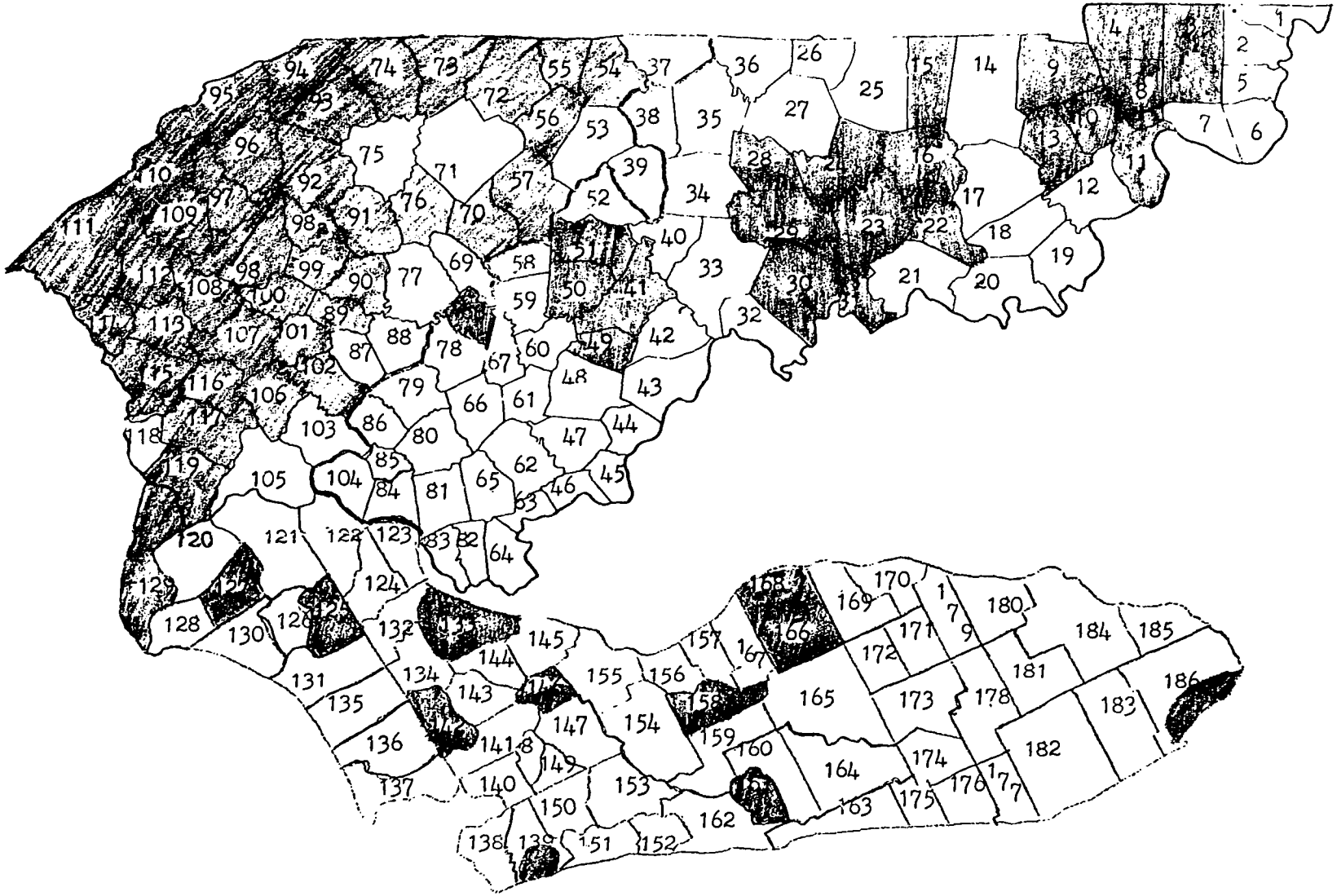
Areas (Counties) Designated as Economically Depressed

KENIDA



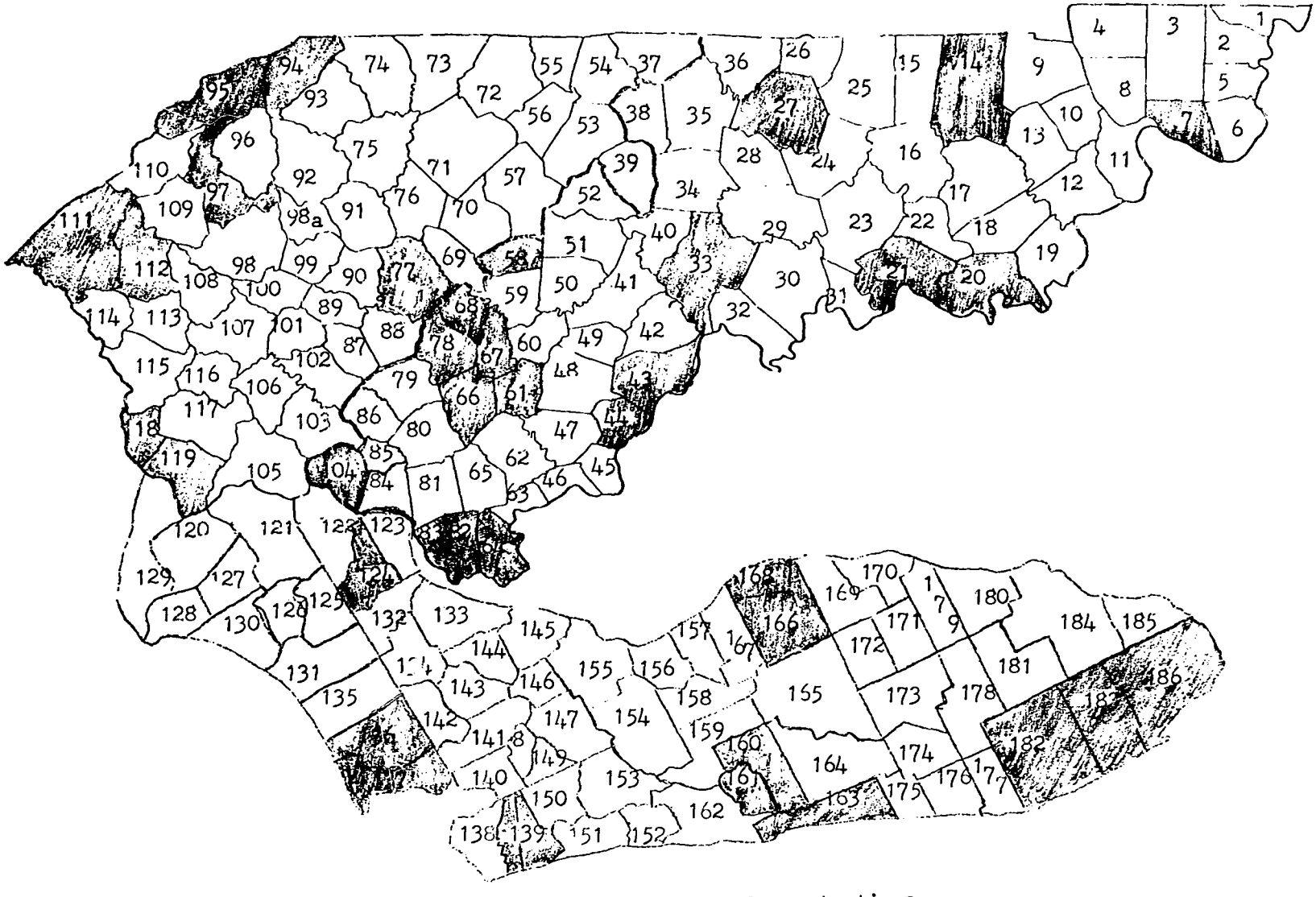
Areas Which are 50 or More Miles From
a Population Center of 25,000 or Larger

KENIDA



Areas (Counties) With High Rates of Youth Unemployment

KENIDA



Areas (Counties) With High Population Concentrations

KENIDA

Pandora

In-Basket

NITMIVRPRA II

MOUNT PANDORA PLEASURE PEAKS

IN HEARTS MOUNTAINS OF N. W. KENIDA

A mammoth recreational area is already in the first stages of construction in the undeveloped mountain and wooded terrain of the most impoverished and sparsely populated northwestern counties of the State of Kenida. Thirty two thousand acres of the Hearts Mountain region in the central Wunderland Plateau of Kenida has been named "Mount Pandora." A central formation of three craggy outcrops separated by deep ravines has been dubbed "Pleasure Peaks" by Mount Pandora Enterprises, Inc.

The new company has purchased a tract about ten miles long in the North-South direction and about five miles wide mainly in South Wolfe (#100) County, but with portions of East Morgan (#107) and North-West Menifee (#101) Counties. The tract lies between Mountain Parkway toll road about 65 miles out of Lexington and U.S. 460, skirting the western edge of Daniel Boone National Forest. Most of the land was purchased from the State of Kenida, but the sprinkling of privately owned farms and hunting lodges had to be negotiated individually. What little opposition there was quickly evaporated before the generous terms offered by the company. Three times the appraised value of each holding together with a promise of permanent employment and new modern housing were difficult bribes to resist.

Governor Loude B. Nunkirk sponsored the package of private bills through the Legislature in the Fall session to permit purchase at the nominal rate of $10.00 an acre, with tax-exempt posession for the first five years and free use of the toll road. The State Park Authority is negotiating a contract for Pandora-sponsored sight-seeing trips to the Sky Bridge and other State Park attractions. The U.S. Department of Agriculture is even more generous in leasing concession sites in the adjoining areas of Daniel Boone National Forest, at $1.00 per year, in return for the clearing and upkeep of nature trails.

The region is heavily wooded with deep undergrowth of almost impenetrable massed Rhododendron thickets, and is criss-crossed by an irregular pattern of precipitous ridges and narrow deep stream valleys. It offers a variety of spectacular rock arches, limestone caves, and mineral springs.

The theme of Mount Pandora will be the almost unlimited variety of recreational pursuits - something to suit all tastes - in keeping with the translation of the Greek words in the name Pandora, "all gifts." Something for everyone, every time. However, there the resemblance to the original legend ceases, since Pandora's curiosity in opening her mysterious box was blamed for releasing all the myriad imperfections and troubles on our human condition. The gigantic treasure chest of Mount Pandora will, on the contrary, release an immense variety of remedies for the anxieties, tensions, and troubles of our fast-paced modern society. The magnificent outdoors with its wildlife, and scenery will provide a setting for picnicing, nature trails, camping, mountaineering, and water sports, while the natural wonders underground will offer an abundance of interesting pursuits such as spelunking, rock collecting, and general sightseeing. Nature will not be destroyed or even disturbed above or below ground, but will simply be more readily accessible and visible to many more people and for longer periods than was previously possible in

their natural state. Such improvements as artificial lighting, particularly below ground, and clearing debris from the site will do nothing but enhance the beauty of the surroundings. In addition, the convenience of facilities for eating, toilets, first aid stations, garbage disposal, transportation--both rapid transit and for sight-seeing--together with security arrangements is a considerable advantage for most tourists. The provision of controlled and tasteful sourvenir and gift-vending stations is also a great relief. The amusement and thrill-ride operation will also be controlled both for safety and for noise and will utilize the rugged terrain and the extensive underground caverns. Into each of the exhibits and amusements will be included educative factors, all the more effective for being unobtrusive.

Some of the attractions planned include such intriguing names as Alice's Wonder Underland, with an Alice's Underground Restaurant, Snow White Forest Fairyland, approached through the caverns of the Seven Dwarfs, a Wine Cave and Rathskeller Restaurant located beneath the foundations of the authentic German "Bergschlossam Rhein," Echo Bluffs, the Troll Tunnels leading to the Hall of the Mountain King, Fossil Fissure, and many more.

An express air-bearing monorail bus will flash visitors to and from the entrances, making the 30-mile perimeter trip in just over 15 minutes. A more leisurely sky-lift cable car will transport sight-seers here and there throughout the complex. Unlimited travel on these and on the electric subway is included in the admission price.

Some of the more specifically educational attractions planned are a simulated earthquake and volcanic eruption, with animated diagrams and an authentic seismograph to record the tremors; the paleontology lessons included in Fossil Fissure, where samples can be chipped off and examined by visitors, who may then take them away as souvenirs; the stalagmite throne and sceptre of the Mountain King, with an exhibit near at hand showing their formation on a speeded-up time scale. Also amateur miners may wager at finding a real diamond or a gold nugget, by buying one to five minutes in the diamond mine or the gold mine.

An estimated one billion dollar investment over a period of ten years is projected by the parent company, Allgift Box Company, through its new subsidiary Mount Pandora Enterprises. This is in keeping with the general policy of Allgift for long-term investment and diversification. However, dividends will begin to accrue from the very first day of opening in 1975, since Allgift will retain the monopoly for all the packaging in the thousand or so retail outlets to be controlled by Pandora. Everything, from box lunches in the Horn and Hardart type vending machines on the nature trails and picnic areas, to plants and seedlings, rock specimens and other souvenirs, will be packaged in an Allgift box or carton. An interesting feature of this operation is that the boxes will be such an attractive novelty item that they will be taken home by visitors instead of adding to the litter problem on the site. The advertising potential of this elaborate item, which will come in a wide variety of designs likely to appeal to different age groups and tastes, will more than offset the extra production costs of the lavish 3-dimensional full-color reproduction of the natural or man-made attractions in the recreational complex.

Although only a few months have passed since Pandora Enterprises took posession of their fifty square miles of rugged territory, they are already ahead of schedule. Bulldozers have cleared large areas needed for the 20-megawatt power plant, hydro-electric of course, sewerage treatment and water purifying plants, and for the first permanent buildings. Temporary routes have been opened for equipment and supply trucks; construction is well under way for company offices, and a few residential units for the displaced home steaders and for security guards. Basic construction jobs such as these are let out to local contractors, who recruit labor locally to supplement their own staff. Pandora will not begin hiring until the first units in the recreation complex are ready for visitors. The training of operators for the various amusement attractions is to be the responsibility of an out-of-state educational agency. Education by contract binds the parties to a "pay on results only" agreement. Contrainers Inc. of Milwaukee undertakes to train a worker to perform specific tasks with an agreed minimum level of skill, irrespective of the time or trouble they expend in the process. There is even a maintenance contract available which ensures periodic testing and, if necessary, updating the skills or even the retraining of an unsatisfactory worker.

The multitude of other jobs generated by such a giant enterprise will have to be provided for by the local Vocational & Technical Education Center, and more remotely by the State Department of Vocational and Technical Education. Occupations will range from guides with a background in wildlife and forestry through food services personnel to electronics technicians.

Although the topography of Mount Pandora is in striking contrast to Walt Disney World amid the lakes, canals, and gently contoured landscapes of East Central Florida, there are remarkable similarities in the two projects. Population patterns are similar, and the organization and procedures of the two companies resemble each other. Walt Disney World may well have served as a blueprint in the planning of the new N. W. Kenida recreational and amusement complex. However, there are two points where significant differences appear. The counties in the Hearts Mountain country surrounding Mount Pandora have a highly isolated, deeply rooted, but scattered poor white population, in contrast to the comparatively recent Negro rural population, settled around the borders of the huge cattle ranges in Central Florida, and just as mobile as most Florida residents. Further, the present flow of tourists through and to N. W. Kenida is a trickle compated to the ever growing flood of Florida trouists.

The accompanying statistics from Walt Disney World can be used only with these provisos in mind.

STATISTICS FOR FLORIDA "WALT DISNEY WORLD"

Florida's "Walt Disney World," 91 times bigger than Disneyland at Anaheim, California, was first revealed to the public in February 1967. It is to open in the Fall of 1971. It is 43 square miles, about 27,000 acres, in area.

Location: 16 miles S. W. of Orlando, between Winter Garden, Orange County, and Kissimmee, Osceola County, near State Route 50, U.S. Route 17-92-441, Interstate 4, and the Sunshine State Parkway (toll).

Cost: Total Estimated Cost to 1981 - $600 million

Demographic Impact: (total to 1981):

(A) Local East Central Florida population increase: 128,000. School population (K - 12) increase: 30,000.

(Example: Osceola Co. 1968. Pop. Density = 14.3/sq. mi.
Estimated 1975 Pop. Density = 20.2/sq. mi.
Estimated 1980 Pop. Density = 27.0/sq. mi.

Economic Impact: (total to 1981: $6.6 billion)

A. Tourism (68 million tourists spending $3.0 billion):

1. Local ($2.7 billion)
   a. Walt Disney World: $1.2 billion
   b. Rest of E. Central Florida: $1.5 billion

2. Rest of State: $0.3 billion

B. Employment (50,000 new jobs worth $3.0 billion)

1. Local ($2.6 billion)
   a. Generated directly by Walt Disney World, (10,000 basic and 15,000 related jobs): $1 billion
   b. Indirectly generated in E. Central Florida, (25,000 jobs): $1.6 billion

2. Rest of State: $0.4 billion due to spin-off from increased employment

C. Other Factors (both local and statewide accumulated benefits over the ten-year period; for example, land values, state and local taxes, utilities, satellite attractions such as Tarzanland, Marco Polo and Canaveral Seashore Parks, etc.: $0.6 billion)

Sources for these approximate data: East Central Florida Regional Planning Council (Report from Economics Research Associates, Sept. 1969), Florida Statistical Abstract, and Florida Handbook 1969-70. Various newspaper articles from St. Petersburg Times and Orlando Sentinel.

INSTITUTE II

Planning Annual and Long-Range Programs of Vocational Education

for Rural Areas According to

The Vocational Education Amendments of 1968

UNIVERSITY OF FLORIDA

Gainesville, Florida

February 2-13, 1970

Participants: State Directors of Vocational Education, State Planning Office, Local Planning Office, Program Specialists, Fiscal Officers, Accountants, Assistant State Directors of Vocational Education.

Director: E. L. Kurth University of Florida

Co-director: R. P. Perkins University of Florida

PROGRAM SCHEDULE
Registration - Lobby, Reitz Union

February 1 Sunday: Briefing Session for Discussion Group Leaders
(arrival day)

First Week

February 2 Monday:
8:00 A.M. to 5:00 P.M. Presiding: Dr E. L. Kurth Univ. of Fla.

8:00 A.M. Registration

9:00 A.M. Welcome to Florida - Dr. Carl W. Proehl, Assistant Commissioner, Vocational, Technical, and Adult Education, Florida Department of Education.

9:15 A.M. Welcome to the University - Dr. Harry Sisler Vice President, University of Florida, Dr. Bert Sharp, Dean College of Education, University of Florida

9:30 A.M. Institute Schedule and Procedures - Dr. E. L. Kurth University of Florida

10:30 A.M. Changing Needs of People in Rural Areas
Dr. C. E. Bishop, Vice President, University of North Carolina at Chapel Hill (on tape).

1:00 P.M. Presiding: Dr. Ray Perkins
Economic Structures of Rural Areas
Dr. Fred Tyner, Associate Professor, Institute of Food and Agricultural Science, University of Florida.

2:30 P.M. Structure and Arrangements for the Institute
Dr. Ray Perkins, Co-director of the Institute

Work Session - groups will organize, present and discuss the assigned case study.

February 3 Tuesday: 8:00 A.M. to 5:00 P.M. Presiding: Dr. E. L. Kurth
University of Florida

8:00 A.M. The Planning Process: Its Nature and Elements
Dr. Joseph Perkins, Planning Specialist for Peat, Marwick, Mitchell and Co., Washington, D. C.

9:00 A.M. Work Session - Groups will discuss planning process

1:00 P.M. Presiding: Dr. Leon Sims, Florida Department of Education.
Overview of Planning Required by the Vocational Education Amendments of 1968 - Dr. G. W. Neubauer, Director of Program Services, Florida Department of Education.

Work Session - groups will discuss planning required by the Vocational Education Amendment of 1968.

February 4 Wednesday: 8:00 A.M. to 5:00 P.M. Presiding: Dr. W. Tenney, U.S.O.E.

8:00 A.M. The Role of Goals and Objectives in Systematic Planning
Dr. L. A. Sims, Director of Planning, Florida Department of Education.

Procedures for Formulating Objectives
a. Formulate a goal
b. Identify a product
c. Consider processes
d. Identify interim products

Work Session - groups will discuss goals and objectives in systematic planning for the case study.

1:00 P.M. Presiding: Dr. James Hensel University of Florida
Specifying Objectives as Measurable Outcomes - Dr. K. M. Eaddy, Director, Research Coordinating Unit, Florida Department of Education.

February 4 Wednesday: 8:00 A.M. to 5:00 P.M. (continued)

Procedures for Identifying Outcomes
a. Need for measurable objectives
b. Specifying measurable objectives
c. Use of measurable objectives
d. Benefits derived from use of measurable objectives

Work Session - groups will discuss measurable outcomes needed for case study.

February 5 Thursday: 8:00 A.M. to 5:00 P.M. Presiding: Dr. Ray Perkins
University of Florida

8:00 A.M. Role of Data and Other Information in Systematic Planning
Dr. John Saunders, Professor, Department of Sociology, University of Florida

a. Need for data and information
b. Kinds of data needed
    1. Student interest information
    2. Labor market information and data
    3. Demographic information (size, density, distribution of population).

9:30 A.M. Work Session - group will discuss need for data in decision making and kinds of data needed for the case study.

10:30 A.M. Sources of Data and Other Information -
Dr. Michael Nunnery, Professor Educational Administration, University of Florida.

a. Federal census
b. State and local census
c. Local Surveys
d. Labor market reports from federal, state and local agencies.
e. State Department of Education reports
f. School facility information
g. School finance information

Work Session - groups will discuss sources of data and information available and identify those data to be collected for the case study.

February 5 Thursday: 8:00 A.M. to 5:00 P.M. (continued)

1:00 P.M. Work session continued

2:30 P.M. Instrument Development, Data Collection, Treatment, Storage and Retrieval
Mrs. Elaine Hershey and Mr. Ray Parker, Information Systems Project, Pinellas County, St. Petersburg, Florida

Work Session - groups will discuss possible information collection and processing rural areas.

February 6 Friday: 8:00 A.M. to 5:00 P.M. Presiding: Dr. E. L. Kurth
University of Florida

8:00 A.M. Selection Criteria for Models -
Oscar Hamilton, University of Florida

9:30 A.M. Work Session - groups will discuss development of criteria for selection of planning models.

10:30 A.M. The Role of Alternative Courses of Action in Systematic Planning
Dr. Kern Alexander, Associate Professor, Department of Education Administration, University of Florida.

Work Session - groups will discuss development of alternative plans to fit models.

1:00 P.M. Organization and Administration Models and Systematic Planning
Dr. R. L. Johns, Professor of Education Administration and School Finance, University of Florida.

2:30 P.M. Work Session - groups will discuss possible administrative and planning models for rural areas.

SECOND WEEK

February 9 Monday: 8:00 A.M. to 5:00 P.M. Presiding: W. T. Loften
University of Florida

8:00 A.M. Operationalizing Selected Educational Models of Vocational Programs at the State Level

Mr. Joseph Malinski, Director of Program Planning and Development, Minnesota Department of Education, St. Paul.

Work Session - groups will discuss implications for states which are predominately rural.

10:00A.M. Operationalizing Selected Vocational Programs at County Levels

Panel of County Area School Directors
Moderator: Dr. Ray Perkins, Co-director of Institute
Mr. Mike Zekas, Local Director Bay County
Mr. Lawrence Oglesby, Director Bradford Union Vocational-Technical School
Mr. Carl Rehwinkel, Director Withlacoochee Vocational-Technical School
Mr. Cliff Bellum Local Director, Sarasota County
Mr. Wayne Saunders, Director, Washington-Holme Vocational-Technical School

1:00 P.M. Work Session - Groups will discuss implications for counties in rural areas.

2:30 P.M. Evaluating Planning Programs Selected for Implementation

Panel of State Directors
Moderator: Dr. E. L. Kurth, Director of Institute
Mr. George Mulling, State Director of Vocational Education for Georgia
Mr. Carl Lamar, State Director of Voc.-Education for Kentucky.

February 9 Monday: 8:00 A.M. to 5:00 P.M. (continued)

Dr. Kenneth Eaddy, Florida Department of Vocational, Technical and Adult Education

Mr. William Lovelace, Texas Department of Vocational Education

Work Session - groups will discuss implication for evaluation of planning models selected for implementation.

February 10 Tuesday: 8:00 A.M. to 5:00 P.M. Presiding: Dr. James W. Crews
University of Florida

8:00 A.M. Current Status of National PPBES Project - Dr. William H. Curtis, Director of Research, Research Corporation of ASBO, Chicago.

Work Session - groups will discuss implication of PPBES to rural areas.

11:00 A.M. PPBES Applications

Current Status of PPBES Project in Douglas County Colorado, Mr. Lowell Baumunk, Superintendent of Douglas County Public Schools, Castlerock, Colorado.

1:00 P.M. Presiding: Dr. Gary Thomas, U.S.O.E.

Current Status of PPBES Project in Dade County Mr. Jack Witsett, Mr. Fred Schollmeyer, Dade County PPBES Project, Miami

Work Session - groups will discuss implication of PPBES in Dade County to the rural areas.

February 11 Wednesday: 8:00 A.M. to 5:00 P.M. Presiding Dr. E. L. Kurth
University of Florida

Work Session - Discussion groups will develop materials and models for case study.

February 12 Thursday: 8:00 A.M. to 5:00 P.M. Presiding: Dr. Ray Perkins
University of Florida

Work Session - discussion groups will prepare final report for case study

February 13 Friday: 8:00 A.M. to 12:00 noon Presiding: Dr. E. L. Kurth
University of Florida

Discussion groups will present final report to institute participants.
Evaluation of the institute

OVERALL INSTITUTE EVALUATION

February 13, 1970

NAME: _____

Please place a number from 1 to 30 in the column head Rank Order beside each of the following thirty items. This is to indicate the order of preference according to your personal rating of the various sessions of Institute II. Your highest rated item will be #1; your lowest preference will be #30. It may be helpful to work from both ends of the thirty-point scale toward the middle fifteenth rank number.

Where you may wish to rank several items equally, skip a corresponding set of subsequent order; for example, after listing four items as equal at rank 11, the next rank order number you use will be #15.

The items are in approximate chronological order, except for some grouping.

	Rank Order
Welcomes, Introductions, etc.:	_____
Various presentation by the Institute Directors:	_____
Work sessions - case studies:	_____
Work sessions - concern groups:	_____
Economic Structures of Rural Areas - Dr. Fred Tyner:	_____
The Planning Process, its Nature and Elements - Dr. Joseph Perkins:	_____
Changing Needs of People in Rural Areas - Dr. C. E. Bishop (On tape, presented by Dr. Charles Rogers):	_____
Overview of the Planning Required by the Vocational Education Amendments of 1968 - Dr. G. W. Newbauer (Paper read by Mr. Ed Eikman):	_____
The Role of Goals and Objective in Systematic Planning, and Specifying Objective as Measurable Outcomes - Dr. L. A. Sims:	_____
Role of Data and Other Information in Systematic Planning - Dr. John Saunders:	_____
Sources of Data and Other Information - Dr. Michael Nunnery:	_____
Instrument Development, Data Collection, Treatment, Storage, and Retrieval - Mrs. Elaine Hersey and Mr. Ray Parker:	_____
Selection of Criteria for Models - Mr. Oscar Hamilton:	_____

	Rank Order
The Curriculum Menu. - Dr. Ray Perkins:	_____
The Role of Alternative Courses of Action in Systematic Planning - Dr. Kern Alexander:	_____
Organization and Administration Models and Systematic Planning - Dr. R. L. Johns:	_____
Operationalizing Selected Educational Models of Vocational Programs at the State Level - Mr. Joseph Malinski:	_____
Operationalization Selected Vocational Programs at County Levels. Panel of Area School Directors - (Cliff Bellum, Lawrence Oglesby, Carl Rehwinkel, Wayne Saunders, Mike Zekas):	_____
Evaluating Planning Programs Selected for Implementation. Panel of State Directors - (Virginia Bert, William Lovelace, George Mulling, C. O. Neel):	_____
Current Status of National PPBES Project - Dr. William Curtis:	_____
Current Status of PPBES Project in Douglas County, Colorado - Mr. Lowell Baumunk:	_____
Current Status of PPBES Project in Dade County, Florida- Mr. Jack Witsett and Mr. Fred Schollmeyer:	_____
Relations between State Directors and Local Directors - Panel (Lowell Baumunk, William H. Curtis, George Mulling, C. O. Neel, Gary Thomas):	_____
Voluntary Presentations by Participants:	_____
Mr. Lowery McHenry:	_____
Dr. Robert Williams:	_____
Mr. William Fitz:	_____
Mr. Carrol E. Burchinal:	_____
Mr. Melvin H. Garner:	_____
Change Agentry - Dr. E. L. Kurth:	_____
A Guide to Innovation in Education - Dr. Ronal G. Havelock (tape):	_____

OVERALL EVALUATION:

Comments on Other Elements
of the Institute

The Institute Directors will appreciate brief, candid comments about the following additional elements pertaining to Institute II. If you wish to identify yourself, you may sign this sheet.

The Cape Kennedy Trip:

Conference Facilities:

Evaluation:
(i) Pre-test:
(ii) Post-test:
(iii) Daily Reactions Sheets:
(iv) Statement of Intent:

Food:

Free Time:

General Organization:

Handouts:

Housing:

Library Facilities:

Recreational Opportunities:

Stipends:

Transportation:

Other Comments and Suggestions:

CODE☐☐☐☐☐ NITMVRPRA II

(Sample of Daily Evaluations)
DAILY REACTION FORM

___Participant
___Program (check one) February 10, 1970
___Visitor

Please circle the scale point which expresses your reaction to the event or activity listed on the left. Three dimensions are to be rated for each program element, from a high of 5 to a low of 1. If you were not present for a particular session of if you feel you cannot rate on the 5-1 scale, use the "X" space. MARK ONE POINT ON EACH SCALE.

	Usefulness	Interest	Appropriation
Current Status of National PPPBES Project Dr. William H. Curtis,ASBO, Chicago	5 4 3 2 1 x	5 4 3 2 1 x	5 4 3 2 1 x
Current Status of PPBES Project in Douglas County, Colorado - Mr. Lowell Baumunk, Castlerock	5 4 3 2 1 x	5 4 3 2 1 x	5 4 3 2 1 x
Panel and Discussion	5 4 3 2 1 x	5 4 3 2 1 x	5 4 3 2 1 x
Current Status of PPBES Project in Dade County - Mr. Jack Witsett and Mr. Fred Schollmeyer, Miami, Florida	5 4 3 2 1 x	5 4 3 2 1 x	5 4 3 2 1 x
Afternoon Work Session	5 4 3 2 1 x	5 4 3 2 1 x	5 4 3 2 1 x
Today (As a Whole)	5 4 3 2 1 x	5 4 3 2 1 x	5 4 3 2 1 x

NATIONAL INSERVICE TRAINING MULTIPLE INSTITUTES
FOR VOCATIONAL AND RELATED PERSONNEDL IN RURAL AREAS

INSTITUTE EVALUATION INSTRUMENTS

TO THE PARTICIPANT:

We solicit your cooperation in helping us to evaluate this institute. The evaluation of the institute consists of two forms to be administered prior to the start of the institute, and three forms to be administered at the end of the institute. Form 1, which will be administered at the beginning and again at the end of the institute, solicits your opinions about vocational education. Form 2, which deals with general beliefs, also will be administered at the beginning and again at the end of the institute. Form 3, which seeks your opinion regarding the conduct of the institute, will be given only at the end of the institute.

Please provide the following information about yourself. BE ASSURED THAT ALL RESPONSES WILL BE TREATED CONFIDENTIALLY. Only the evaluator will see your paper. The responses will be summarized and used in the interim and final reports. SINCE WE ARE NOT ASKING YOU FOR YOUR NAME, PLEASE BE SURE TO INCLUDE YOUR DATE OF BIRTH SO THAT WE CAN PAIR YOUR PRETEST WITH YOUR POSTTEST.

Institute: _____ Date: _____

Sex: _____ Date of Birth: _____

State: _____

Position: _____

Highest Degree Obtained: _____

Vocational Field: _____ Agricultural Education

_____ Business and Office Education

_____ Distributive Education

_____ Health Education

_____ Home Economics

_____ Industrial Arts

_____ Technical Education

_____ Trade and Industrial Education

_____ Guidance

_____ Other (Specify) _____

FORM I

Key: SA(Strongly Agree), A(Agree), ?(Undecided), D(Disagree), SD(Strongly Disagree)

1.	No real benefit can be expected of vocational education courses.	SA	A	?	D	SD
2.	Students capable of success in college should be discouraged from taking vocational education courses.	SA	A	?	D	SD
3.	The importance of vocational education cannot be emphasized enough.	SA	A	?	D	SD
4.	Failure to offer vocational education cannot be justified in a democratic society.	SA	A	?	D	SD
5.	Vocational education is geared to the past.	SA	A	?	D	SD
6.	The major function of the high school should be the preparation of students for entrance into college.	SA	A	?	D	SD
7.	Vocational education should be offered only to students with low academic ability.	SA	A	?	D	SD
8.	The cost of training workers should not be born by the public school system.	SA	A	?	D	SD
9.	There is no place in secondary schools for vocational education.	SA	A	?	D	SD
10.	Vocational education should be handled outside the academic school system--in technical institutes or community colleges.	SA	A	?	D	SD
11.	Increased emphasis on vocational education would not result in fewer dropouts.	SA	A	?	D	SD
12.	Every high school graduate should be equipped with a salable skill.	SA	A	?	D	SD
13.	Increased vocational education may be the answer to the problems of unemployment.	SA	A	?	D	SD
14.	Academic educational courses are more useful than vocational courses to the average student.	SA	A	?	D	SD
15.	No secondary school should be accredited unless it offers a comprehensive program of vocational education, given adequate funds.	SA	A	?	D	SD
16.	The information provided in the college preparatory courses can be applied to more jobs than the information available in vocational education courses.	SA	A	?	D	SD

Key: SA(Strongly Agree), A(Agree), ?(Undecided), D(Disagree), SD(Strongly Disagree)

17.	More students should be encouraged to enroll in vocational education programs.	SA	A	?	D	SD
18.	Vocational education is an educational frill.	SA	A	?	D	SD
19.	No area of education is more important than vocational education.	SA	A	?	D	SD
20.	Public expenditure of funds for vocational education is the best educational expenditure that can be made.	SA	A	?	D	SD
21.	The general education curriculum is the best preparation for entry into an occupation upon graduation from high school.	SA	A	?	D	SD
22.	Vocational education courses are as important for college bound students as they are for non-college bound students.	SA	A	?	D	SD
23.	The proportion of the school budget allocated to vocational education should be increased markedly.	SA	A	?	D	SD
24.	Vocational education is one answer to youth unrest in this country.	SA	A	?	D	SD
25.	Redistribution of present education funds to emphasize vocational education would probably yield a higher national per capita income.	SA	A	?	D	SD
26.	Vocational education courses prepare students for many jobs which lack prestige.	SA	A	?	D	SD
27.	All students should be enrolled in at least one vocational education class while in school.	SA	A	?	D	SD
28.	Rural youth are being educationally short-changed due to inadequate vocational offerings.	SA	A	?	D	SD
29.	Vocational education in rural areas is more important than vocational education in urban areas.	SA	A	?	D	SD
30.	Currently employed rural vocational education teachers are less adequatley prepared than vocational education teachers in general.	SA	A	?	D	SD

Key: SA(Strongly Agree), A(Agree), ?(Undecided), D(Disagree), SD(Strongly Disagree)

31.	More inclusive preparation is required for vocational teachers in general than for rural vocational education teachers.	SA	A	?	D	SD
32.	Only the non-college-bound need vocational education.	SA	A	?	D	SD
33.	Academic courses are applicable to a wider spectrum of jobs than vocational education courses.	SA	A	?	D	SD
34.	Most students would not benefit from the job skill instruction offered in vocational education programs.	SA	A	?	D	SD
35.	Vocational education courses are beneficial primarily for those who are terminating their education at the end of high school.	SA	A	?	D	SD
36.	The vocational education curriculum provides a better preparation for more jobs than does the college preparatory curriculum.	SA	A	?	D	SD
37.	Vocational education courses provide learning experiences geared to individual needs better than academic courses.	SA	A	?	D	SD
38.	Vocational education programs help keep the potential dropout in school.	SA	A	?	D	SD
39.	Vocational training is not as valuable to society as training for the professions.	SA	A	?	D	SD

FORM 2

*Th a questionnaire to find out the way in which certain important event. in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

1. a. Children get into trouble because their parents punish them too much.
   b. The trouble with most children nowadays is that their parents are too easy with them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck.
   b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
   b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.
   b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.
   b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.
   b. Trusting to fate has never turned otu as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
    b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
    b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
    b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.
    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.
    b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.
    b. Many times we might just as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
    b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
    b. By taking an active part in political and social affairs the people can control world events.

18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
    b. There is really no such thing as "luck."

19. a. One should always be willing to admit mistakes.
    b. It is usually best to cover up one's mistakes.

20. a. It is hard to know whether or not a person really likes you.
    b. How many friends you have depends upon how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by the good ones.
    b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. a. With enough effort we can wipe out political corruption.
    b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.
    b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader expects people to decide for themselves what they should do.
    b. A good leader makes it clear to everybody what their jobs are.

25. a. Many times I feel that I have little influence over the things that happen to me.
    b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly.
    b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.
    b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.
    b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.
    b. In the long run the people are responsible for bad government on a national as well as on a local level.

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*Rotter, J. B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, 1966, 1-28.

FORM 3

NOTE: Please Do Not Sign Your Name

Key: SA (Strongly Agree) A (Agree), ? (Undecided), D (Disagree), SD (Strongly Disagree)

1.	The objectives of this institute were clear to me.	SA	A	?	D	SD
2.	The objectives of this institute were not realistic.	SA	A	?	D	SD
3.	The participants accepted the purposes of this institute.	SA	A	?	D	SD
4.	The objectives of this institute were not the same as my objectives.	SA	A	?	D	SD
5.	I have not learned anything new.	SA	A	?	D	SD
6.	The material presented seemed valuable to me.	SA	A	?	D	SD
7.	I could have learned as much by reading a book.	SA	A	?	D	SD
8.	Possible solutions to my problems were not considered.	SA	A	?	D	SD
9.	The information presented was too elementary.	SA	A	?	D	SD
10.	The speakers really knew their subject.	SA	A	?	D	SD
11.	I was stimulated to think about the topics presented.	SA	A	?	D	SD
12.	We worked together well as a group.	SA	A	?	D	SD
13.	The group discussions were excellent.	SA	A	?	D	SD
14.	There was little time for informal conversation.	SA	A	?	D	SD
15.	I had no opportunity to express my ideas.	SA	A	?	D	SD
16.	I really felt a part of this group.	SA	A	?	D	SD
17.	My time was well spent.	SA	A	?	D	SD
18.	The institute met my expectations.	SA	A	?	D	SD
19.	Too much time was devoted to trivial matters.	SA	A	?	D	SD
20.	The information presented was too advanced.	SA	A	?	D	SD
21.	The content was not readily applicable to the important problems in this area.	SA	A	?	D	SD
22.	Theory was not related to practice.	SA	A	?	D	SD

23. The printed materials that were provided were very helpful. SA A ? D SD

24. The schedule should have been more flexible. SA A ? D SD

25. As a result of your participation in this institute, do you plan to modify either your present or future work? Yes_____ No_____

If YES, please descrive the nature of the most important of such modifications and the activities which will be affected.

_____

_____

_____

26. As a result of your contacts with the participants and consultants at this institute, have you decided to seek some conintuing means of exchanging information with any of them, i. e., to establish some continuing relation with a participant(s) and/or consultant(s), for the purpose of information exchange?

YES _____ NO _____

If YES, what types of information can the consultant or participant contribute that would be helpful to your work?

_____

_____

_____

27. To what extent were the objectives of this institute attained? _____

_____

_____

_____

28. In your opinion, what were the major strengths of this institute? ____

_____

_____

_____

29. In your opinion, what were the major weaknesses of this institute?

_____

_____

_____

30. If you were asked to conduct an institute similar to this one, what would you do differently from what was done in this institute?

_____

_____

_____

31. Additional comments about institute. _____

_____

_____

_____

_____

_____

32. If you had it to do over again would you apply for this institute which you have just completed?

YES_____ NO_____ UNCERTAIN_____

33. If an institute such as this is held again would you recommend to others like you that they attend?

YES_____ NO_____ UNCERTAIN_____

STATEMENT OF INTENT

TASK ANALYSIS NITMVRPRA II

Name _____

1. What purposes does this project have?

   (a)

   (b)

2. What are the parameters of our responsibility?

3. What are the goals of the project

4. What are the quantifiable objectives?

5. What constraints must we deal with?

6. What program elements, with the constraints, will meet the objectives?

7. Are there alternative program possibilities?

8. Can we develop evaluation criteria and techniques for measuring the effectiveness of the program selected?

   Examples: (a)

   (b)

   (c)

Task Analysis (continued)

9. What resources will be needed?

10. What are the time constraints we are dealing with, for planning, development, implementation, and maintaining?

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February 1-13, 1970

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